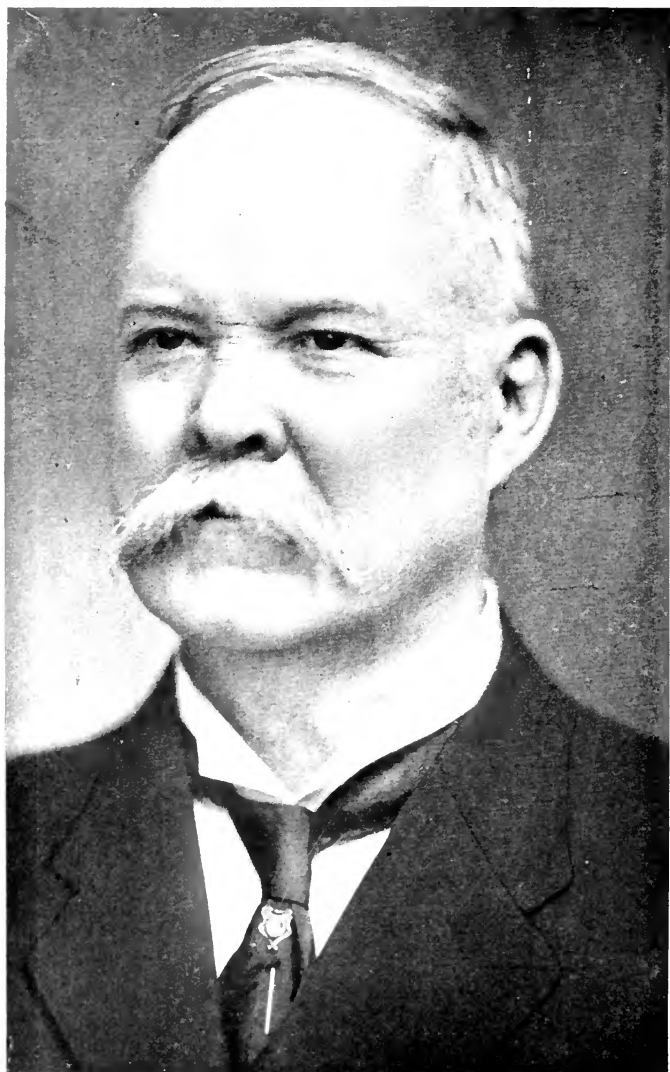


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Noble Smithson

211

Smithson's Theory

of

Special Creation

by

NOBLE SMITHSON

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By NOBLE SMITHSON

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*To the Memory of my
Father and Mother
John Greene Smithson
and
Ann Ladd Smithson*

To the Reader: If you care to write me your view of my theory as set forth in the following pages, I shall be pleased to hear from you.

NOBLE SMITHSON.



Preface

A critical reader of the works of Darwin, Huxley, Spencer, Haeckel, Romanes, Weismann, Mivart, Cope and other writers, on organic evolution; will find that there is much diversity in the views of these writers. Darwin believes that the first one, or the first few, animals and plants were directly and specially made by the Creator; Haeckel says the primordial forms arose "by spontaneous generation from inorganic matter." Referring to the origin of life, Romanes says that "science is not in a position to furnish so much as suggestion upon the subject." Neither Huxley, Weismann, Mivart nor Cope has anything to say on the origin of life. No two of these writers agree as to the work of the "factors" of evolution. According to Darwin, Romanes and Weismann, natural selection did substantially the entire work of evolving all the species of animal and plant. But Cope, and other evolutionists of the Lamarckian school, hold that use, disuse, pressure, friction and motion did it.

Weismann argues that the inheritance of "acquired characters" is impossible; while Spencer, Romanes and other evolutionists say that Weismann's views are highly absurd and would entirely destroy the theory of evolution; and I think they are correct in this view. There are many evolutionists for and against Weismann's theory of heredity. Writers on evolution differ as widely on other important questions, as on these.

Many of the theories of the evolutionists are quite absurd. Among these may be mentioned the theory of "protective mimicry" and "sexual selection." So their belief that the blind "factors," working by chance and accident, have differentiated one part of a minute individual into a set of male sexual organs, and another part of the same individual into a set of female sexual organs, as in hermaphroditic animals and plants, appears to be quite preposterous. So it is impossible to believe these "factors" have differentiated one-half of the individuals of each species of mammal into males and the other half into females, for example into men and women. If time and space permitted me, I could easily point out divers other absurdities in the views of the evolutionists.

To be consistent, every evolutionist must maintain that characters, acquired by the parent, are transmitted by heredity to their offspring; for the whole theory of evolution is based on the hypothesis of accumulated "adaptations and variations." Thus, suppose a pair of snakes have ten vertebræ (joints) in their spinal columns; that each of them acquires one, making eleven; that their offspring start with eleven and acquire one, and so on until the ninetieth generation, which would have a hundred vertebræ. Such a thing might happen, according to the evolutionist; but I do not believe any such thing ever did happen.

But no evolutionist has ever shown how or why the offspring happen to resemble one or both of their parents. In brief, the mechanism of heredity is wholly unknown. The evolutionist tells us that "heredity and adaptation" have evolved all the species of ani-

mal and plant. Having done this, he appears to think that he has explained all the phenomena of reproduction, heredity and life. But his solution of the vital equation contains an unknown quantity, namely: "heredity;" and it is, therefore, no solution at all.

The evolutionist and materialist maintain that the blind unthinking atoms and cells, of which the embryo body is made, do, spontaneously and automatically, without the aid or guidance of any extraneous, psychic or creative force, group themselves into the chemical combinations and mechanical arrangements, which are necessary to build up the embryo body with all its organs and parts—its brain, eyes, ears, heart, lungs, etc. This is the most preposterous of all their propositions.

I have worked out this proposition:

"Intellect, memory, will-power, force and motion are necessary to group two or more atoms into a prescribed chemical combination; or into a specified mechanical arrangement."

Thus, if the reader were required to group ten silver dollars into a triangle with three dollars in each side and one in the center, he must have intellect to understand the nature and properties of a triangle; and to know how to construct it; and to know when it is completed; must have memory to bear these things in mind while doing the work; must have will-power to begin and continue the work until it is completed; must generate such force and produce such motions as are necessary to assemble and group the coins into the prescribed figure.

Can the reader discover any flaw in this proposition?

There is no trace of the coming embryo in the germ-cell (fertilized ovum); nor of any organ or part of it. It follows that each embryo and every organ and part of it must be made, anew, of fresh materials; that the atoms and cells of which it is composed must be selected, assembled and grouped into the chemical combinations and mechanical arrangements which are necessary to construct the embryo body and each organ and part of it; each organ and part of it being a new combination of its component atoms and cells.

Intellect, memory, will-power, force and motion—supernatural, psychic and creative force—are necessary to make each embryo body and every organ and part of it. Let us suppose that a hundred million silver dollars were coined last year, at the mint in Philadelphia. It is clear that each of these coins was made, anew; that it was a new combination of the atoms of silver and copper contained in it; that it required the same work to make each of them, that it did to make every other—the same to make the last that it did to make the first. The same is true of each man and woman.

The purpose of this little work is to present some of the facts, and make some of the arguments, which tend to prove that each human being is a new, direct and special creation by Almighty God!

NOBLE SMITHSON.

Knoxville, Tennessee.

Nov. 1, 1911.

Sec. 1. Personal God

I believe there is a personal God, the Creator and Ruler of the Universe. If this is not true, matter, force and the motion of matter constitute the Universe. There is no middle ground between these two propositions.

The first animal that ever lived on our earth was directly and specially made by the Creator; or it arose by spontaneous generation from inorganic matter. How else could it come into existence? The same is true of the first plant. Which of these two theories is most reasonable?

Every human being that ever lived was either directly and specially made by the Creator; or the blind unthinking atoms and cells of which his body was, and is, composed, spontaneously and automatically grouped themselves into the chemical combinations and mechanical arrangements necessary to build up his body. How else could a human body be made? Which hypothesis is most plausible?

Can we believe that intellect, memory and will are merely properties of matter, like length, breadth, thickness and weight; or are these faculties the attributes of a spiritual entity?

I believe that the Creator has been manifesting His knowledge, wisdom, power and goodness ever since the first man appeared on the earth; that He has been performing miracles before the eyes of men during all this time; that He has been speaking to

mankind through these manifestations and miracles throughout the ages. But they have failed to read His messages.

Most educated persons are familiar with the phenomena of life, reproduction and heredity. But the real question is: whether the Creator causes these phenomena, or whether the blind, unthinking atoms and cells, of which the body is composed, produce them, spontaneously and automatically, without the aid of any extraneous psychic or creative force. The fact that these phenomena are manifested, and the cause of them, are two wholly different things. Everybody knows that a stone falls to the ground, but nobody knows why.

Sec. 2. Whence and Whither

Has man descended from worms, fishes, lizards, opossums, hedgehogs and apes as Haeckel says? Is he a son of an ape? No! A Son of God!

Does death annihilate both soul and body; or does the soul live after the death of the body? Shall we see and know our children, fathers, mothers, brothers, sisters, husbands, wives, and friends after death? Shall we enjoy forever, the society of the good, the true and the beautiful? Shall we be free from want, pain and sorrow? Shall we be happy throughout eternity? This is my belief and hope!

Darwin (*Origin of Species*, vol. 1, p. 228) says: "Have we any right to suppose that the Creator

works by intellectual powers like those of man?" On the same page he refers to "the works of the Creator" as being superior to those of man. In the same work (vol. 2, p. 304) he refers to "the laws impressed on matter by the Creator." Again (p. 306) he refers to life as "having been originally breathed by the Creator into a few forms or into one," animal, at the beginning of life on the earth. In his *Descent of Man* (p. 95) he says: "There is no evidence that man was aboriginally endowed with the ennobling belief in the existence of the omnipotent God." Referring to the question: "Whether there exists a Creator and Ruler of the Universe." On the same page he says: "And this has been answered in the affirmative by some of the highest intellects that have ever existed." In the same work (p. 627) he says: "The idea of a universeal and beneficent Creator does not seem to arise in the mind of man, until he has been elevated by long continued culture." On the same page he says: "Few persons feel any anxiety from the impossibility of determining at what precise period, in the development of the individual, from the first trace of a minute germinal vesicle, man becomes an immortal being." Again (pp. 627-628) he says: "The birth, both of the species and of the individual are equally parts of that grand sequence of events which our minds refuse to accept as the result of blind chance. The understanding revolts at such a conclusion." Thus it appears that Darwin believed in the existence of a personal God and in the immortality of the human soul. But he also believed "that the production and extinction of the past and

present inhabitants of the world" have been "due to secondary causes, like those determining the birth and death of the individual." (*Origin of Species*, 2, p. 304.) In brief, Darwin maintained that the Creator directly and specially made one or a few primordial forms, and turned them loose upon the earth to shift for themselves, subject to the "factors of evolution."

Although Darwin appears to believe in the special creation of the first one, or the first few, animals and plants, and in the immortality of the human soul, yet his theory of evolution is highly materialistic; and the publication of this *Origin of Species* gave materialism an immense impetus.

The *Encyclopedia Britannica* (9 ed., vol. 2, p. 109), referring to "thinkers, who hold materialistic views," says:

"According to this school, man is a machine, no doubt the most complex and wonderfully adapted of all known machines, but still neither more nor less than an instrument whose energy is provided by force from without, and which, when set in action performs the various operations, for which its structure fits it, namely: to live, move, feel and think."

The materialist maintains that there is no substance in man, which is alone conscious, distinct and separable from the body; that matter is the only substance in existence; and that matter and its motions constitute the universe. (*Cent. Dic.* 5, p. 3658.) This work, on the same page quotes J. Fisk (*Evolutionist*, p. 277) as saying that "Philosophical materialism holds that matter, and the motions of matter, make

up the sum total of existence; and that what we know as psychical phenomena in man and other animals, are to be interpreted, in an ultimate analysis as simply the peculiar aspect, which is assumed by certain enormously complicated motions of matter." (Cent. Dic. 5, p. 3658.)

According to this view, if one should meet a friend, the sight of him would set certain atoms in his eyes and brain in motion; and these atoms would inform the Ego that the man is his friend, Smith or Jones.

So, if one be required to find the square root of 3,600, his eyes or ears would see or hear the problem; and the sight or hearing of it would set certain atoms in motion; and by this motion they would ascertain that 60 is the square root required. But the theory is too absurd for discussion, in this place.

I assume that every evolutionist is logically a materialist. Referring to "Man and the rest of the living world," Huxley, (*Man's Place*, etc., p. 151), says:

"I can see no excuse for doubting that all are co-ordinated terms of nature's great progression, from the formless to the formed—from the inorganic to the organic—from the blind force to conscious intellect and will."

So far as I know he does not mention the Creator nor the human soul in any of his works; but he strenuously maintains that man is a son of an ape; and believes that all the phenomena of life are the result of chemical and mechanical forces.

Herbert Spencer does not use the word "God,"

“Creator” nor “Soul” in the index to his *Principles of Biology*; but after discussing the theory of special creation at length, he says:

“The hypothesis of special creation turns out to be worthless by its derivation; worthless in its incoherence; absolutely without evidence; worthless as not supplying an intellectual need, worthless as not supplying a moral want.” (*Principles of Biology* 1, p. 430.)

This quotation is full of bosh and nonsense. For example: In the same book (pp. 415-416), referring to the hypothesis of special creation and to that of evolution, Spencer says:

“Both hypotheses imply a cause. The last, certainly as much as the first, recognizes this cause as *inscrutable*. The point at issue is, how this inscrutable cause has worked, in the production of living forms. This point, if it is to be decided at all, is to be decided only by examination of evidence.”

The word “inscrutable” is synonymous with “impenetrable,” “undiscoverable,” “incomprehensible,” “unsearchable,” “mysterious.” (*Cent. Dic.* 4, p. 3114.)

Now, if the Cause which produces animals and plants is impenetrable, incomprehensible, etc., Spencer could not possibly know whether each animal and plant is directly and specially made by the Creator or not; nor could he say, logically, that there is no evidence of special creation; for he admits that the Cause is “inscrutable” to him. But there is abundant evidence that each animal and plant is a new direct and special creation, for the obvious reason

that no other hypothesis can explain and account for the admitted facts.

Haeckel, (*Evolution of Man*, p. 26), says the first one, or the first few, animals that appeared on our earth arose "by spontaneous generation from inorganic matter." On the same page he says:

"Life is only a physical phenomenon. All the plants and animals, with man at their head, are to be explained in structure and life, by mechanical or efficient causes, without any appeal to final causes, just as in the case of minerals and other inorganic bodies. This applies equally to the origin of the various species. We must not assume any original creation * * * * * to explain this, but a natural, continuous and necessary evolution "

Prior to the publication of Darwin's *Origin of Species* in 1859, belief in the theory of special creation was well nigh universal among scientists as well as laymen. But immediately after the publication of that work the scientific world accepted Darwin's theory as absolute truth, not only as to animals and plants, but extended the Darwinian principle of materialism to all other branches of science. Materialism permeated all literature and became a fad. It fostered "higher criticism," agnosticism, infidelity and atheism. It destroyed human hope and enthroned despair. It shock and rent the church from the corner stone to the spire.

According to the materialist, there is no such thing as a personal God, nor a human soul. He maintains that life, intellect, memory and will-power are

mere properties of the human body as a physical structure; and that death works the absolute annihilation of the body and the Ego. In his view, there is no life, punishment nor pleasure after death. He, therefore, resolves to make the most of his life, and to get all the ease, comfort and pleasure that it affords, without regard to anything that may happen after death. He has no fear of any final judgment, nor of God. He is not restrained by any moral law, nor by any religious obligation. He fears nothing but publicity, public opinion, and the criminal statutes. Hence, lying, cheating, fraud, perjury, theft, robbery, murder, suicide.

I admit that heredity, environment and other forces, which the evolutionist denominates, "the factors of organic evolution," may affect, modify, or differentiate an animal or a plant, or its organs and parts, to a certain extent. But I deny that heredity, environment or any, or all, the "factors" combined, are adequate to evolve a new species of animal or plant; or even a new organ or part of one. On the contrary I maintain that heredity, environment and all other factors of evolution combined, are inadequate to produce a single animal or plant, without the aid of the Creator; and that each animal and plant is a new, direct and special creation by Almighty God.

In this little work, I shall make an humble effort to prove that there is a living personal God; that He directly and specially creates each human being; makes its body and endows it with life and with an immortal soul. If the reader shall think that I have made a creditable effort to accomplish this purpose, I

shall have done my fellow man a good service by pointing the way to hope and happiness.

Sec. 3. Chemical Elements Composing the Human Body

“Of the elements known to chemists,” says Professor Martin, “only sixteen have been found to take part in the formation of the human body. These are (1) calcium, (2) carbon, (3) chlorine, (4) fluorine, (5) hydrogen, (6) iron, (7) lithium, (8) magnesium, (9) manganese, (10) nitrogen, (11) oxygen, (12) phosphorus, (13) potassium, (14) silicon, (15) sodium, and (16) sulphur. Copper and lead have sometimes been found in small quantities, but are probably accidental and occasional. (Martin, Human Body, p. 7.)

It is clear that neither the nature nor the properties of these elementary substances, are changed by the fact that such substance has become a part of the body. For example, iron is iron whether in or out of the body.

It is probable that the chemical composition of the human body is substantially the same as that of the body of every other mammal.

Sec. 4. Atoms

The words "atom" and "atoms" will be often used in the following pages. Therefore, it is deemed proper to state the nature and properties of an atom, so far as known. It is defined as: "An extremely minute particle of matter; a hypothetical particle of matter, so minute as to admit of no division; an ultimate indivisible particle of matter. (Cent. Dic. 1, p. 365.) The Encyclopedia Britannica says: "Atom is a body which cannot be cut in two. The Atomic theory is a theory of the constitution of bodies, which asserts that they are made up of atoms. (Encyc. Brit. 3, p. 36.) A molecule is the smallest mass of any substance, which is capable of existing in a separate form; that is the smallest part, into which the substance can be divided without destroying its chemical identity. A molecule of any substance is conceived of as made up of two or more atoms. (Cent. Dic. 5, p. 3822.)

In biology a cell is defined, first, as the fundamental form-element of every organized body. Secondly, as a nucleated, capsulated form element of any structure or tissue; one of the protoplasmic bodies, which build up an animal fabric; a body consisting of cell-substance, cell-wall and cell-nucleus, as bone-cell, etc. (Cent. Dic. 1, p. 878.) The body of every animal and plant is made of cells; and each cell is composed of many atoms.

For a full discussion of "The Atomic Theory,"

see *Encyc. Brit.* 3, pp. 36-49, (9th ed.); *New Int. Encyc.* 13, pp. 683-685.

Sec. 5. Cells and Cell Theory

In Biology, the word "cell" denotes the fundamental form-element of every organized body. It is a bioplastic mass of protoplasm, varying in size and shape, generally of microscopic dimensions, capable, under proper conditions, of performing the functions of sensation, nutrition, reproduction and automatic or spontaneous motion, and constituting in itself an entire organism, or being capable of entering into the structure of one.

Such a cell, as a rule, has a nucleus and is usually also provided with a wall or definite boundary; but neither cell-nucleus nor cell-wall necessarily enters into its structure. In ultimate morphological analysis, all organized tissue is resolvable into cells or cell products. See "Protoplasm," and "Cell Theory," *infra*.

Specifically, the word "cell" denotes a nucleated capsulated form-element of any structure or tissue one of the independent protoplasmic bodies which build up an animal fabric. A body consisting of cell substances, cell-wall and cell-nucleus, as bone cells, cartilage-cells, muscle-cells, nerve-cells, fat-cells, cells of connective tissue, of mucous and serous membrane, etc., of the blood, lymph, etc. This is the usual character of cells in animals, and is the ordinary technical anatomical sense of the word.

“However complicated one of the higher animals or plants may be,” says Huxley, “it begins its separate existence under the form of a nucleated cell.”—Huxley, *Anatomy Invert. An.* p. 19.

See Haeckel, *Ev. Man*, chap. 6. “*Ovum and amoeba*,” pp. 36-50; Spencer, *Principles, Biology, Index*, “*Cell*,” 2 p. 630; Romanes, *Darwin, etc.*, 1, pp. 104-134; *Encyc. Brit.* 12, pp. 5-10, “*Histology*,” *New Int. Encyc.* 4, p. 400.

Professor McMurrich, of the University of Michigan, says:

“It has been estimated that the number of cells entering into the composition of the body of an adult human being is about twenty-six million five hundred thousand million.” (McMurrich, *Development, Human Body*, p. 18.) This number is equivalent to twenty-six and a half trillions.

The “cell theory” is the doctrine that the bodies of all animals and plants consist, either of a cell, or of a number of cells, and their products; and that all cells proceed from cells, as expressed in the phrase *omnis cellula e cellula*: a doctrine foreshadowed by Kasper Freidrich Wolff, who died in 1794, and by Karl, Ernst Von Baer (born 1792.) It was established in botany by Schleiden in 1838, and in zoology by Theodor Schwann about 1839.

Its complete form, including the ovum, as a simple cell, also, is the basis of the present state of the biological sciences.—*Cent. Dic.* 1, p. 879, col. 1.

Sec. 6. Protoplasm

Protoplasm is an albuminoid substance, ordinarily resembling the white of an egg, consisting of carbon, oxygen, nitrogen, and hydrogen in extremely complex and unstable molecular combination, and capable, under proper conditions, of manifesting certain vital phenomena, as spontaneous motion, sensation, assimilation, and reproduction, thus constituting the physical basis of life of all plants and animals; sarcode. It is essential to the nature of protoplasm that the substance consist chemically of the four elements named (with or without a trace of some other elements); but the molecule is so highly compounded that these elements may be present in somewhat different proportions in different cases, so that the chemical formula is not always the same. The name has also been somewhat loosely applied to albuminous substances widely different in some physical properties, as density or fluidity. Thus the hard material of so-called vegetable ivory and the soft body of an amœba are both protoplasmic. The physiological activities of protoplasm are manifested in its irritability, or ready response to external stimuli, as well as its inherent capacity of spontaneous movement and other indications of life; so that the least particle of this substance may be observed to go through the whole cycle of vital functions. Protoplasm builds up every vegetable and animal fabric, it is itself devoid of discernible histological structure. It is ordinarily color-

less and transparent, or nearly so, and of glairy or viscid semi-fluid consistency, as is well seen in the bodies of foraminifers, amœbæ, and other of the lowest forms of animal life. Such protoplasm (originally named sarcode) when not confined by an investing membrane, has the power of extension in any direction in the form of temporary processes capable of being withdrawn again; and it has also the characteristic property of streaming in minute masses through closed membranes without the loss of the identity of such masses. An individuated mass of protoplasm, generally of microscopic size with or without a nucleus and a wall, constitutes a cell, which may be the whole body of an organism, or the structural unit of aggregation of a multicellular animal or plant. The ovum of any creature consists of protoplasm, and all the tissues of the most complex living organisms result from the multiplication, differentiation, and specialization of such protoplasmic cell-units. The life of the organism, as a whole, consists in the continuous waste and repair of the protoplasmic material of its cells. No animal, however, can elaborate protoplasm directly from the chemical elements of that substance. The manufacture of protoplasm is a function of the vegetable kingdom. Plants make it directly from mineral compounds and from the atmosphere under the influence of the sun's light and heat, thus becoming the store-house of food-stuff for the animal kingdom.—(See Cent. Dic. 6, p. 4799.)

Hence this substance, known in Vegetable Physiology as protoplasm, but often referred to by zoölogists as sarcode, has been appropriately designated by

Professor Huxley "the physical Basis of Life."—(W. B. Carpenter, *Micros*, sec. 219.)

For the whole living world, then, it results that the morphological unit—the primary and fundamental form of life—is merely an individual mass of protoplasm, in which no further structure is discernible.—(Huxley, *Anat. Invert.*, p. 18.)

See Spencer, *Principles Biology I*, p. 63-67. *Encyc. Brit.* 19, p. 828-830; *New Int. Encyc.* 16, p. 471-472. Haeckel, *Ev. Man*, pp. 36-50; "Ovum and Amœba."

Sec. 7. Human Body is a Compound Physical Structure Built of Cells

The human body and every organ, part and cell in it, has length, breadth, thickness and weight, like a brick or stone. So, every such body and every organ and part of it is built of material substances as completely as are the foundation, walls, roof and other parts of a brick house. The body, as a whole, and every organ and part of it, has every property and attribute of a physical structure; and all the materials of which the body is built up, except the germ-cell (or fertilized ovum), were dead matter before they were assimilated and incorporated into it. So, all the materials, of which such a body is built up, are selected, assembled, grouped together and put into position in the body in the same manner that bricks, or blocks of stone are gathered up and put into po-

sition in a building, but by different forces and other means.

But there is a marked difference between the process of building a house, engine, or other inanimate structure, on the one hand, and the body of the human embryo on the other. The wood, clay, iron and other materials used in the construction of the former are found ready to hand; and they are cut, sawed, burned, molded, or hammered, by man, into the proper size, form and condition for use in the construction of the building or machine; and are carried, by him, to the place, at which the building or machine is to be constructed. He then places these materials in such positions as to build up and complete the building or machine.

On the other hand the materials of which the body of the human embryo is built, are carried by the blood of the mother to their proper places in the body; and different portions of the same raw material, namely: the mother's blood, are then differentiated and specialized into bones, muscles, nerves, arteries, veins, and other tissues, which go to make up the human body.

These bones, muscles, nerves, etc., are all new creations, independent of those of the mother, father or any other human being that ever lived. Except the tiny germ-cell, which is less than one-trillionth part of the infant, at birth, they are built of atoms that never formed any part of any other human body.

The human body is not only a compound physical structure, consisting of hundreds of bones, hundreds of muscles, arteries, veins, etc., and of trillions of

cells; and of many organs, as the brain, heart, lungs, etc., but each of its tissues and each of its organs and parts has its own chemical composition and its own mechanical arrangement, peculiar to itself. For example, all the bones are composed of phosphate of lime, carbonate of lime and other elements peculiar to the bony tissue. Again, the atoms (cells) in each bone are mechanically arranged in a manner peculiar to that bone. Thus, the atoms in the bones of the skull are so arranged as to make them flat and curved, with an inner and outer plate; those in the other bones are so arranged as to make them long and cylindrical (arms and legs); others short (hands and feet); others flat and curved (ribs); others with complex forms (vertebræ), and so on. The muscular, vascular and nervous tissues are each composed of chemical elements peculiar to themselves; and their atoms are so arranged, mechanically, as to form the muscles, arteries, veins, nerves, etc.

The human body is not only a compound physical structure, with all these tissues, organs, cells, etc., but life is added to all the other wonderful properties, which it possesses.

Now, the chemical elements, which compose the bones, muscles, arteries, veins, nerves, etc., either assemble, automatically, and group themselves, chemically, and at the same time, automatically, arrange themselves, mechanically, in such a manner as to form the bones, muscles, arteries, veins, nerves, brain, heart, lungs, stomach, etc., without the aid of any extraneous psychic or creative force, or this wonderful work

is done by the Creator, Himself. Which hypothesis is most plausible?

But this is not all. Each organ and part of the body is adjusted to, and correlated with, every other organ and part of it. For example, the heart and lungs are so arranged as to work together. What force or agency selected, assembled and grouped the chemical elements, which compose the heart, then arranged these atoms in such a manner as to form the heart with chambers, valves, etc.? How did it happen that the elements, which compose the lungs, were assembled, grouped and arranged so as to form them with their complex machinery. Are these things the work of blind unthinking cells or of the Creator?

It is inconceivable that the germ-cell (fertilized ovum), the mother's blood or any atom of it has intellect, memory or will-power. It would be absurd nonsense to suppose that the atoms, of which bones, muscles, nerves, etc., are composed automatically, and of their own motion, differentiated themselves into bones, muscles, nerves, etc., and then grouped themselves together, mechanically, in such manner as to form the bones, muscles, nerves, etc., then fitted themselves together as we find them in the body of the infant at birth.

The properties and characteristics of the human body, as a physical structure, are not altered nor affected by the fact that it is composed of live tissues, such as bones, muscles, arteries, veins, nerves, etc., and of live organs as the brain, heart, lungs, liver, stomach, kidneys, etc., for the body and every organ and part of it has the same length, breadth, thickness,

and weight, whether living or dead, at least, until disintegration sets in. In brief, the living human body has identically the same physical properties and characteristics that an inanimate body would have, if the latter were composed of the same chemical elements, combined in the same proportions and mechanically arranged in the same manner and kept at the same temperature, as that of the human body; and the body merely has life, intellect, memory and will-power added to its physical properties and characteristics.

Nor do the atoms and cells, nor the organs and parts, of which the body is composed, except the brain, have any more intellect, memory and will-power than so many grains of sand, or so many bricks. For example: Every man knows that neither his bones, muscles, arteries, veins, nerves, eyes, ears, nose, arms, hands, legs, feet, heart, lungs, stomach, liver, nor his kidneys have any intellectual powers whatever.

Every man knows that the infant, at birth, has no conscious intellect, memory, nor will-power. It is, therefore, absurd to suppose that the embryo has any power or control over its own development and growth. It is equally clear that the mother has no direct power nor control over its growth.

So, every man knows that his I, ego, or self has no power, nor any control over any part of his body except his brain and voluntary muscles. For example, no man can determine his complexion; nor the color of his hair; nor of his eyes; nor the length of his nose, nor his feet; nor the size of his head. These facts prove, conclusively, that the Creator generates,

guides and controls the forces which build up the embryo body.

Sec. 8. Human Body is a Complex Animal Machine

The human soul knows, feels and wills. It resides in the brain and governs the body by means of the brain and nerves; the stomach digests the food and makes nutriment for the body; the heart pumps the blood to and from the several parts of it, the arteries and veins carry the blood from the heart and back to it; the blood carries fresh building materials to every part of the body, and gathers up, and carries waste matter back to the heart and lungs; the lungs purify and enliven the blood; the liver secretes bile and cleanses the blood; the muscles and bones move the body and every part of it; the nerves carry messages from the brain to every part of the body and from every other part to the brain; the kidneys and other organs perform their functions; the work of all these organs being necessary to keep the body in good working order. The brain, stomach, heart, arteries, veins, lungs, blood, muscles, bones, kidneys, etc., may each be considered as a complex animal machine, designed and constructed to perform its special functions.

The body, as a whole, is an animal machine, which does much work peculiar to itself.

The functions of all organs other than those of

the brain and voluntary muscles are performed by them, independently of the will. In other words: all the organs of the body except the brain and the voluntary muscles appear to act automatically as an automatic machine does. For example, the stomach, heart, lungs, liver and kidneys appear to do their work as automatic machines, independently of the will; nor has man any direct control, nor power over the work of any of his organs except that of the brain and voluntary muscles. Thus, he cannot directly compel his stomach to digest his food; nor has he any direct control over the action of his heart, nor over that of his lungs; nor can he directly compel his liver to secrete bile. All he can do is to take medicine or some other substance into his stomach, and thence into his blood to stimulate, reduce, or modify the action of his organs; or change his environment.

No male has any direct control nor any voluntary agency in the formation of spermatozoä in his genital organs; nor has any female any control over, nor any voluntary part in, the formation of eggs in her ovaries. In fact fully ninety-nine per cent of mankind are wholly ignorant of the existence of spermatozoä and ova (eggs), having no knowledge, whatever, of the mechanism by which their own offspring are brought into being.

What are we to infer from these facts? Can we believe that the functions of the heart and other involuntary muscles do their work, automatically, without the aid of any extraneous psychic force? Can we believe that the mysterious spermatozoön, and ovum are produced in the genital organs of the male and female,

without their knowledge and without the aid of any psychic or creative force, whatever? Is it possible for the atoms of which each spermatozoön is composed, to assemble and group themselves, automatically into it without the aid of a supernatural psychic and creative force. In another section of this work, I have argued that each spermatozoön is a new, direct and special creation. The same is true of each ovum. I believe that the same psychic and creative force which generates guides and controls the forces, that build up the body of the embryo, continues to generate, guide and control many of the forces which affect the human body during its whole life. I believe that the same force determines the growth and waste of cells; and by this means fixes the size of each normal body. Why does an elephant grow larger than a mouse; an ox larger than a man; an eagle larger than a humming bird? How does it happen that all men, elephants, mice, eagles, etc., are of substantially the same size?

It is clear that neither man nor an other animal, has any control over the growth of cells in his body, nor over his own size. The cells of which these bodies are built up, have no intellect, memory nor will-power. It would be impossible for them to know when a sufficient number of cells have been made to bring these bodies to their proper sizes. The cells have no power to control their production nor their waste. It follows that the Creator must govern and control the forces, which produce the cells in each animal body; and that he fixes within certain limits, the form and size of each body.

Sec. 9. Human Body is Constructed on a Definite and Specific Plan


Every bone, joint, process, muscle, nerve, artery, vein and part has its own chemical composition, form, size, structure and position in the body. Each normal human body has the same tissues, organs and parts, that every other such body has; the form, structure, organs and parts of all normal bodies being identically the same.

If the so-called factors of evolution were at work in every age and in every part of the earth, as maintained by the evolutionist, we would surely find variations and diversities in the form and structure of the bodies of men in different ages and countries; for we know that the environments of the different varieties of man differ very greatly in time and space. For example, the eskimos live all their lives in the frozen regions at the North, while the inhabitants of the tropics spend their lives under a blazing sun; yet there is no anatomical difference between the body of an Eskimo and that of a Cuban.

What is the inference to be drawn from these facts? The evolutionist and the naturalist say that the facts imply that all men have descended from a common ancestor, that each individual inherits, from his parents, every organ and part of his body, that "like begets like." They maintain that the law of heredity has produced the uniformity of size, form, features, organs and parts, which we discover among

all men, all over the world. No doubt this is the belief of more than ninety-nine (99) per cent of mankind.

But this belief is manifestly erroneous for the following reasons: (1) Whatever passes from the parents to the child is transmitted by and through the fertilized ovum; (2) this ovum is short-lived; it has no brain, eyes, ears, nose, touch nor taste; no intellect, memory nor will-power; nor inherent power to produce the embryo body; nor to endow such a body with life; nor to create a human soul; (3) each embryo body grows, anew, for itself, without regard to the development and growth of its parents or any other ancestor; and it is a new chemical combination and a new mechanical arrangement of the atoms of which it is composed; (4) each chemical combination of atoms in an embryo body is made according to a prescribed chemical formula; and each mechanical arrangement of atoms in such a body is made according to a specific plan; in other words the chemical combinations and mechanical arrangements of atoms, in each embryo body, are identically the same as those in every other such body; (5) conscious intellect, memory, will-power, force and motion are necessary to combine two or more atoms chemically, according to a prescribed formula and to group two or more atoms, mechanically, according to a specific plan; (6) Hence, we are compelled to believe that every human body is a new, direct and special creation by Almighty God.



Sec. 10. Human Body is Unique and Peculiar

Each normal human body resembles every other such body, in form, size, and structure; in chemical elements, organs and parts. But it differs from every other in these particulars: (1) The atoms of which it is composed are exclusively its own; (2) it is a new combination of these atoms; (3) it grew anew, for itself, separately and apart from, and independent of, every other such body; (4) the forces and motions, which produced it, were peculiar to it, in origin, time and space.

See Cent. Dic. Supplement, "A-L," p. 582. "Hereditary;" Encyc. Brit. (9 ed.) 24, p. 818, "Variation."

Sec. 11. Force and Motion

Sir Isaac Newton's first law of motion is written in these words:

"Every body continues in its state of rest, or of uniform motion in a straight line, except in so far as it is compelled, by force, to change that state."—(Encyc. Brit. (9 ed.) 15, p. 676, "Mechanics.")

"Energy may be defined," says the Britannica, "as the power of doing work, or of overcoming resistance. A bent spring possesses energy, for it is capable of doing work in returning to its natural form; a

charge of gun powder possesses energy for it is capable of doing work in exploding; a Leyden jar, charged with electricity possesses energy, for it is capable of doing work in being discharged.”—(Encyc. Brit. (9 ed.) 8, pp. 205-206, “Energy.”)

“Force is that which affects the motion of matter.”—(Encyc. Brit. (9 ed.) 7, p. 581, “Dynamics.”)

“The conclusion, which appears inevitable,” it says on another page, “is that whatever matter may be the other reality in the physical universe, energy, which is never found unassociated with matter, depends, in all its widely varied forms upon motion of matter.” (Encyc. Brit. (9 ed.) 15, p. 748, “Mechanics.”)

The sense of the above quotation is this: There are two realities in the physical universe: (1) matter, whatever it may be; (2) energy, which is always associated with matter. Energy “depends, in all its varied forms, upon motion of matter.” For example, let us suppose that we have three balls, designated as A, B, C, resting on a table in a straight line, one inch apart. Suppose that I strike A and drive it against B, that B strikes and moves C. In this case my arm moves and generates energy or force, which moves A against B, and B against C. The motion of my arm is the force which moves A; the motion of A is the force which moves B, and the motion of B is the force which moves C. Thus, we have demonstrated that energy or force generates motion; and that motions produces force; that is, that each is convertible into the other.

“Motion” is defined as “change of place; transi-

tion from one point or position in space to another; continuous variation of position." (Cent. Dic. 5, p. 3872.)

Every human being begins life as a fertilized ovum, which is about as large as one-sixth of a pin's head. At birth, an infant weighs from five to nine pounds, the average weight being six and one-half pounds. (New International Encyc. 7, p. 775.) It is then millions of times larger than a fertilized ovum. In other words: millions of atoms have been selected, assembled, chemically combined and mechanically arranged and grouped in such a manner as to form the body of a living infant, which is a complete miniature model of the body of a man or woman.

It is obvious that the materials of which the embryo body is built up, except the fertilized ovum, are derived from the food eaten by the mother; that her heart and arteries generate the forces and produce the motions which carry the materials to the building site of the embryo, just as the builder assembles the bricks, stones, sand, lime, lumber, nails and other materials to build a house.

The embryo body is a compound physical structure built of cells, as a house is built of bricks. The atoms and cells, of which it is composed, are subject to all the laws of force and motion, to the same extent, and in the same manner that bricks are. Nor have they any more intellect, memory nor will-power than a brick has.

Perhaps the first thing that an infant does, after birth, is the breathe. In order to do this, air must be forced into, and out of its lungs. To enable the

heart to beat, its auricles must dilate and take the blood into it; and its ventricles must contract and force the blood out of it, and into the arteries. So that every time one breathes, and every time one's heart beats, force is exerted and motion of air and blood is produced. Every time one takes a drink of water or a bite of bread he must exert sufficient force to raise it, and produce sufficient motion to bring it to his mouth. Every time one takes a step he exerts sufficient force and produces sufficient motion to move his body the distance that he steps. For example, suppose that A, weighing two hundred pounds, gets on an electric street car and rides a mile. It is obvious that the electric motor has exerted sufficient force and produced sufficient motion of A's body to move two hundred pounds, the distance of a mile. Now, if A had walked along the same railway track the same distance, it is clear that would have exerted the same force and produced the same motion of his body that the motor did.

We eat, drink, speak, move, act, work, live—do everything by force and motion. When they cease, death comes.

Everything that a man can do with a physical body is resolvable into force and motion. He may move a body from one place to another; he may group two or more bodies together; or he may take two or more bodies apart; or he may cut or break a body into two or more parts. But, at last, all of these operations are equivalent to moving one or more bodies from one place to another, by force and motion.

A sewing machine, adding machine, watch, steam

engine, and every other machine is constructed by force and motion. Every piece of music is sung or played by force and motion. Every painting is made by grouping two or more pigments (colors) together in a particular manner by force and motion.

Intellect, memory and will power are necessary to produce two or more forces and motions in a prescribed order and within a given time. For example, each note in a piece of music requires, for its production, a certain force and peculiar motion (vibration) of cord, pipe or string within a certain time. It is obvious that intellect, memory and will-power are necessary to sing or play any piece of music. Before anyone can speak any given word he must have intellect, memory and will-power: (1) he must know the word to be uttered, (2) he must remember it until it is uttered, (3) he must have the will-power necessary to exert the force and produce the motion of air necessary to utter it. Let the reader speak the words: "earth," "air," "fire," "water," and analyze the process.

Intellect, memory and will-power are necessary to generate, guide, and control the forces and motions required to make a watch or any other compound machine or structure, within a given time. Suppose that a watchmaker is required to make each spring, wheel and part of a watch by hand, to put every part in its place and start it to running on or about the 280th day after he begins the work. (Haeckel *Ev. Man*, p. 199.) To do this work he must have intellect, memory and will-power to generate, guide, and control and time the forces and motions which are nec-

essary to make each part of the watch and to fit and group them together when completed. He must know and remember every part of it; remember the material of which it is made; remember its form and size; compare each piece with the pattern; remember the time in which he is to do the work. He must have the will-power to begin and continue the work until it is done, doing such part of it each day as to complete it on or about the day fixed.

But the forces and motions, which build up the body of the embryo, work in the dark without brain or sense-organs. To put the watchmaker on the same basis with the Creator, we will have to suppose that the watchmaker is blind and has no sense of touch. Would it be possible for him to make a watch under these conditions?

The mother's food is taken into her mouth, chewed and mixed with saliva and passes into her stomach. Here it is mixed with gastric juice and converted into chyme. It then passes into the small intestine (duodenum) where it is mixed with pancreatic secretion, bile and "the secretion of the glands Brunner and the Crypts of Lieberkühn" and thus converted into chyle. Most of the "nutritive constituents" of the chyle pass through the epithelium of the small intestines into the subjacent blood and lymphatic vessels and are carried off. Those passing into the blood capillaries are taken by the portal vein to the liver; while those entering the lacteals are carried into the left jugular vein by the thoracic duct. (Martin, Human Body, pp. 361-377.)

This is a very brief outline of the processes, by

which the food, one eats is converted into blood and passes into the arteries and veins.

The embryo at first, has no heart, arteries, nor veins. After its body has developed and grown to a certain extent, the mother's heart and arteries carry arterial blood to it through the "umbilical vein." This blood finally reaches the heart of the embryo, and is carried by its heart and arteries to every part of its body, then returned through "two umbilical arteries" and the placenta to the veins of the mother. In this way, the embryo has a sort of circulation of its own. But it appears to have no independent circulation during the first three or four months of its life; and the blood which circulates through it must be aerated or oxygenated in the mother's lungs.

We may say, in general terms, that the mother's heart and arteries exert all the force and produce all the motion which build up the embryo. It is true that the work of her heart and arteries is supplemented, after a time, by that of the heart and arteries of the embryo but the latter work is a small part of the whole.

The water in a stream runs from its head to its mouth because the latter is nearer to the center of the earth than the former. In other words, the water in every stream is carried forward by the force of gravitation. The water in a stream carries silt (mud, fine earth, etc.) which is deposited along its course and at its mouth. As already stated, the mother's blood is carried to the embryo body by the force of her heart and arteries. Her blood conveys to the embryo, the materials of which it is built up, as the water in a

stream carries silt to its mouth. Her blood has no more intellect, memory nor will-power than the water in a stream.

If a portion of the silt at the mouth of the Mississippi should be deposited at its mouth in the form of a colossal man, showing his head, neck, body, arms, legs, hands, feet, eyes, ears, nose, mouth, etc., it would be considered a great miracle. But the formation of the embryo body in the womb of its mother, with all its organs and parts is far more miraculous than the formation of the silt man of the Mississippi would be.

The reader may reply that the atoms of which the embryo is built up are not merely deposited but they are absorbed by the fertilized ovum and its daughter cells, and converted into new cells; that these cells are chemically combined and differentiated and mechanically arranged in such a manner as to form the embryo body, etc. True; but force and motion are necessary to produce new cells, to make the necessary chemical combinations and mechanical arrangements; and these forces and motions must be generated, guided and controlled by a Being possessed of a conscious intellect, memory, will-power and creative force.

Sec. 12. Intellect, Memory and Will-power are Necessary, When

Conscious intellect, memory and will-power are necessary to generate, guide and control the force and motion employed in the construction of a compound physical structure, whatever its form or size may be.

Each spermatozoön is composed of myriads of atoms. The atoms of each are chemically combined and mechanically arranged in the same manner that those in every other are, all spermatozoä being identical in chemical composition, mechanical arrangement, form and size. The same is true of each ovum and fertilized ovum, and of the atoms in them, respectively, *vice versa*. So each embryo is composed of myriads of cells, the cells in each having identically the same chemical composition and mechanical arrangement that those in every other embryo of the same age and sex have; all embryos of the same age and sex having substantially the same chemical combinations and mechanical arrangements of their cells, organs and parts. It follows that each human spermatozoön, ovum, fertilized ovum and embryo, of the same age and sex is constructed according to certain prescribed "plans and specifications."

We are, therefore, compelled to assume that the force and motion necessary to construct the spermatozoön, ovum, fertilized ovum and embryo are generated, guided and controlled by a Being with full

knowledge of the “plans and specifications,” of the chemical elements, their affinities and combinations, of mechanical arrangements, etc. The Architect must know the “plans and specifications;” must be able to compare the work of construction with them, as the work progresses; must have memory to bear in mind and recall the plans and specifications; and must have will-power to begin and continue the work until the “structure” is completed. So He must see that each organ and part attains its proper form and size at the right time; that each organ and part is properly proportioned to and correlated with, every other on each day of its growth. In other words: He must see that the forces at work, and the motions produced in each organ and part of the embryo body are proportioned to and in harmony with the forces at work and the motions produced in every other; that the development and growth of each organ and part keeps pace with those of every other. This knowledge, power and creative force belongs only to the Creator.

Sec. 13. Spermatozoön

A spermatozoön is a microscopic body contained in the semen, to which the seminal fluid owes its vitality; and which is the immediate means of impregnating or fertilizing the ovum of the female; a spermatic cell or filament; a spermatozoid. (Cent. Dic. 7, p. 5819.)

The spermatozoön is composed of protoplasm and

is one of the smallest cells in the animal body. The seminal fluid is called "sperm" or "the male seed." Sperm, like saliva or blood, is not a simple fluid, but is a thick agglomeration of innumerable cells swimming about in a comparatively small quantity of fluid. It is not the fluid, but the independent male cells, which swim in it, that cause conception. They have, as a rule, "a peculiarly lively motion." In most animals, the spermatozoä have a very small naked body, inclosing an elongated nucleus and a long thread like tail, hanging from it. It was long before we could recognize that these structures were simple cells. We now know that the spermatozoä are nothing but simple and real cells of the kind we call "ciliated" cells, equipped with cilia or "lashes."

The body of the spermatozoön is divided into "head," "trunk" and "tail." The head is merely the oval nucleus of the cell; the body or middle part is an accumulation of cell matter and the tail is a thread-like prolongation of the trunk or body. The form of the spermatozoön is not peculiar to it; cells with similar forms are found in various other parts of the body. Such forms as the spermatozoön are called caudate or tailed cells. See Haeckel, *Evolution of Man*, p. 52-53.

"The spermatozoä," says Professor Martin, "are motile bodies about 1/500th of an inch in length; they have a flattened, clear body or head and a long vibratile tail or cilium; the portion of the tail nearest the head is thicker than the rest, and is known as the neck. The mode of development of a spermatozoön shows that the head is a cell-nucleus and the neck and tail a

modified cell-body.”—(Martin, *Human Body*, p. 651.)

According to Haeckel, the spermatozoön is about 1/10,000th of an inch in diameter. See *Evolution of Man*, p. 53, fig. 22.

“The striking differences,” says Haeckel, “of [between] the respective cells, in size and shape * * * * are easily explained on the principle of division of labor. The inert motionless ovum grows in size according to the quantity of provision it stores up in the form of nutritive yelk for the development of the germ. The active swimming sperm-cell is reduced in size in proportion to its need to seek the ovum and bore its way into its yelk.”—Haeckel, *Evolution of Man*, p. 57.)

These statements appear to be true; but the work described by Haeckel, cannot be done by man nor woman; nor by their sexual organs; nor by the blind unthinking atoms which go to build up the spermatozoön and the ovum. The Creator only, can make them!

“The phenomena we have described,” he says, on another page, “can only be understood and explained by ascribing a certain lower degree of psychic activity to the sexual principles. They feel each other’s proximity and are drawn together by a sensitive impulse (probably related to smell); they move towards each other and do not rest until they fuse together. (Haeckel, *Evolution of Man*, p. 58.)

There is no pretense that the spermatozoön has any brain, eyes, ears, nose, taste or touch; nor that the ovum has any such organs. Then, how can they have any “degree of psychic activity;” how can “they feel each other’s proximity;” how can “they

move towards each other?" How could either know in what direction to go in order to reach the other?

It is absurd to suppose that the spermatozoön and ovum have any knowledge of each other, or of anything else; and the only reasonable hypothesis is that the Creator generates, guides, and controls the forces which bring them together and fuse them into the germ-cell.

Sec. 14. Ovum

The word ovum is defined as: "An egg in a broad biological sense; and the proper product of an ovary; the female germ or seed, which, when fertilized by the male sperm, is capable of developing into an individual like the parents. * * * * An ovum consists of a quantity of protoplasm or cell-substance called the vitellus or yolk inclosed in a cell-wall or vitelline membrane, and provided with a nucleus and nucleolus." (Cent. Dic. 5, p. 4212.)

"The ovum (egg) is extremely small," says Haeckel, "being a tiny round vesicle about 1/120th of an inch in diameter; it can be seen under favorable circumstances with the naked eye as a tiny particle, but is otherwise quite invisible. This particle is formed in the ovary inside a much larger globule, which takes the name of the Graäffian follicle, from its discoverer, Graäff, and [which] had been previously regarded as the true ovum." (Evolution of Man, chap. 3, pp. 16-17.)

"Man is developed," says Darwin, "from an

ovule (little egg) about the $1/125$ th of an inch in diameter, which differs in no respect from the ovules of other animals." (Descent of Man, chap. 1, p. 9.)

"In man," says Romanes, "as in most mammals, it (the ovum or egg-cell) is about $1/120$ th of an inch in diameter. (Romanes, *Darwin and After Darwin*, 1, p. 120.)

Supposing the human egg to be $1/120$ th of an inch in diameter and an ordinary pin's head to be $1/16$ th of an inch in diameter, which is about its size, the egg would be about $1/7$ th of the size of a pin's head.

Haeckel says: "In the lower vertebrates the formation of ova (eggs) in the germ-epithelium of the ovary continues throughout life; but in the higher animals it is restricted to the earlier stages, or even to the period of embryonic development.

"In man it seems to cease in the first year; in the second year we find no new-formed ova (eggs) or chains of ova (Pfluger's tubes.) However, the number of ova (eggs) in the two ovaries is very large in the young girl. There are calculated to be 72,000 in the sexually mature maiden." (*Evolution of Man*, chap. 29, p. 347.)

"The human ovum," says Haeckel, "whether fertilized, or not, cannot be distinguished from that of most other mammals. It is nearly the same everywhere, in form, size, and composition. When it is fully formed, it has a diameter of (on an average) about $1/120$ th of an inch. When the mammal ovum (egg) has been carefully isolated and held against the light on a glass-plate, it may be seen as a fine point

even with the naked eye. The ova (eggs) of most of the higher animals are about the same size. The diameter of the ovum (egg) is almost always between 1/250th and 1/125th of an inch. It has always the same globular shape; the same characteristic membrane; the same transparent germinal vesicle with its dark germinal spot.

“Even when we use the most powerful microscope,” he continues, “with its highest power, we can detect no material difference between the ova (eggs) of man, the ape, dog, and so on. I do not mean to say that there are no differences between the ova (eggs) of these different mammals. On the contrary, we are bound to assume that there are such [differences] at least as regards chemical composition. Even the ova (eggs) of different men must differ from each other; otherwise we should not have a different individual from each ovum (egg). It is true that our crude and imperfect apparatus cannot detect these subtle individual differences which are probably in the molecular (atomic) structure.”—(*Evolution of Man*, chap. 6, p. 44.)

Sec. 15. Spermatozoön and Ovum are Special Creations

Each human spermatozoön is formed in the genital organs of a particular man. So each human ovum is formed in the genital organs of a particular woman. Each of them is a new chemical combination, and a new mechanical arrangement, of the atoms of carbon,

hydrogen, nitrogen and oxygen (protoplasm) of which they are composed; which atoms are now, combined and arranged, for the first and last time, into a spermatozoön or an ovum. The atoms in a spermatozoön are chemically combined according to a prescribed formula, and mechanically arranged according to a specific plan; and the same is true of the atoms in an ovum. Each spermatozoön has the same chemical composition and the same mechanical arrangement, the same form and size, that every other has. So each ovum has the same combination and arrangement, the same form and size that every other has.

The materials, forces and motions employed in making each spermatozoön are similar to those employed in forming every other; but they are wholly different from, and independent of, those employed in making any other; and the same is true of the materials, forces and motions employed in making each ovum.

In other words, each spermatozoön is composed of its own atoms, and these atoms are selected, assembled, combined and arranged by forces and motions, peculiar to itself, independently of and wholly different from, the forces and motions which build up every other. The same is true of each ovum, the necessary changes being made.

It is a well known fact that each human spermatozoön is so adapted to, and correlated with, each human ovum that these two cells will, under suitable conditions, fuse and produce a new human being. It is also true that no other substance, on the earth, will fuse with such an ovum with the same result. The

same is true of each ovum *vice versa*. These facts prove that each spermatozoön, and each ovum, has a specific composition, and definite arrangement of its atoms; that each spermatozoön has the same composition, and, substantially the same form, size, and structure that every other has; and that each ovum has the same composition, form, size and structure that every other has.

We cannot doubt that each spermatozoön and each ovum is produced anew, separately and apart from, and independently of every other, the production of each having no relation to the production nor to the existence of any other.

Intellect, memory, will-power, force and motion are necessary to group two or more atoms into a prescribed chemical combination, or into a specified mechanical arrangement. So supernatural, psychic and creative force are necessary to endow the human spermatozoön and ovum, with the vital properties and potentialities which they are known to possess.

Thus it appears that each spermatozoön and each ovum has mysterious and wonderful properties peculiar to itself. We cannot believe that they are produced by accident, nor by chance; nor that the atoms, of which they are composed, assemble and group themselves, automatically, into the form of a spermatozoön or an ovum; nor that they are evolved by the factors of evolution. The man in whose genital organs the spermatozoön is formed, has no conscious part nor voluntary agency in its production; nor has he any control, nor any power over it. His sexual organs "grind it out" as a mill grinds out meal. Nor has

the woman, in whose ovary the ovum is formed, any part nor agency in its production; nor any control nor any power over it. No man, however wise, scientific and great he may be, can make any combination of atoms with the properties and potentialities of the spermatozoön; nor with those of the ovum.

The atoms in each spermatozoön are unique and peculiar to it, they being similar to, but differing from, those composing any other spermatozoön; and the same is true of the atoms composing each ovum. So, each spermatozoön appears to be endowed with the power to produce a child with a form, features, characteristics and traits resembling those of its father. In like manner it appears that each ovum has the power to produce a child with a form, features, qualities and traits resembling those of its mother.

But the smallest ant is a giant, in comparison with the spermatozoön or the ovum. Neither of them has any brain, nor eyes, ears, nose, touch, nor taste—no brain nor sense—organs. It is impossible to believe that the spermatozoön knows the color of its father's hair and eyes; his complexion; the length of his nose; the size and form of his head; his facial expression; his characteristics and traits. Nor can we even imagine that the ovum has any knowledge of its mother, nor of her anatomy, organs, form, features or characteristics.

But assuming for argument that the spermatozoön and ovum do know all these things, it would be absurd to suppose that they can, automatically, combine, arrange and differentiate their atoms, and the new daughter-cells, which are produced in the embryo

body, in such manner and form as to reproduce the hair, eyes, complexion, form, features, characteristics and traits of the father and mother. The work, which the spermatozoön and ovum appear to do is, in fact, done by the Creator, Himself, He employing them as instruments with which to do the same.

In view of all the facts, we are compelled to infer that the Creator selects the atoms, which form the spermatozoön and the ovum and that he generates, guides and controls the forces, which assemble, group and arrange them into the form of a spermatozoön and ovum.

It follows that each human spermatozoön and ovum is a new, direct and special creation by Almighty God.

Sec. 16. Germ-Cell, Stem-Cell or Fertilized Ovum

The fertilized ovum is variously called, "germ-cell," "stem-cell," "first segmentation sphere," "parent-cell," "impregnated ovum," "fertilized egg cell," and other names of like import, all these phrases meaning the same thing.

Under the head, "Conception," Haeckel says, among other things:

"The process of fertilization by sexual conception consists, therefore, essentially, in the coölescence and fusing together of two different cells. The lively spermatozoön travels toward the ovum by its serpen-

tine movements and bores its way into the female cell. The nuclei of both sexual cells attracted by a certain affinity approach each other and melt into one.”—(Haeckel, *Ev. Man*, p. 53.)

How do they acquire this “affinity?” How do they know each other? Have they intellect, memory and will? Are they not driven toward each other by a supernatural, psychic force?

Continuing he says:

“The fertilized cell is quite another thing from the unfertilized cell. For if we must regard the spermia [spermatozoä] as real cells, no less than the ova, and the process of conception as the coölescence of the two we must consider the resultant cell as a quite new and independent organism. It bears in the cell and nuclear matter of the penetrating spermatozoön a part of the father’s body, and in the protoplasm of the ovum a part of the mother’s body. This is clear from the fact that the child inherits many features from both parents. It inherits from the father by means of the spermatozoön and from the mother by means of the ovum. The actual blending of the two cells produces a third cell, which is the germ of the child, or new organism conceived. One may also say of this sexual coölescence that *the stem cell is a simple hermaphrodite*, it unites both sexual substances in itself.” (*Ev. Man*, pp. 53-54.)

“The individual development,” he says, “in man and the other animals, commences with the formation of a simple “stem-cell,” of this character, and this then passes by repeated segmentation (or cleavage) into a cluster of cells, known as ‘the segmentation

sphere,' or 'segmentation cell.' '' (Haeckel, *Ev. Man*, p. 54.)

On another page (56) he says:

"Hence the essential point in the process of sexual reproduction or impregnation is the formation of a new cell, the stem-cell, by the combination of two originally different cells, the female ovum and the male spermatozoön. The process is of the highest importance and merits our closest attention. All that happens in the later development of this first cell, and in the life of the organism that comes of it, is determined from the first by the chemical and morphological composition of the stem-cell, its nucleus and its body." (*Ev. Man*, p. 56.)

"Hertwig," he continues, "puts his theory of conception thus:

'Conception consists in the copulation of two cell-nuclei, which comes from a male and a female cell.
* * * * '

"As the phenomenon of heredity is inseparably connected with the reproductive process we may further conclude that these two copulating nuclei convey the characteristics which are transmitted from parents to offspring." (*Ev. of Man*, p. 56.)

"As, moreover, there is a complete coalescence (fusion) of the mutually attracted nuclear substances in conception, and the new nucleus formed (the stem nucleus) is the real starting point for the development of the fresh organism, the further conclusion may be drawn that the male nucleus conveys to the child the qualities of the father, and the female nucleus the features of the mother.

“We must not forget, however, that the protoplasmic bodies of the copulating cells also fuse together in the act of impregnation; the cell-body of the invading spermatozoön (the trunk and tail of the ciliated cell) is dissolved in the yelk of the female ovum. This coölescence is not so important as that of the [two] nuclei, but it must not be overlooked; and though the process is not so well known to us, we see clearly at least the formation of the star-like figure, (the radial arrangement of the particles in the plasma) in it.” (Haeckel, *Ev. Man*, p. 56.)

In another place (p. 57) he says:

“It has been shown that the tiny sperm-cell (spermatozoön) is not subordinated to but coordinated with, the large ovum. The nuclei of the two cells, as the vehicle of the hereditary features of the parents, are of equal physiological importance. In some cases we have succeeded in proving that the mass of the active nuclear substance, which combines in the copulation of the two sexual nuclei is originally the same for both.

“These morphological facts are in perfect harmony with the familiar physiological truth that the child inherits from both parents; and that on the average they are equally distributed. I say ‘on the average’ because it is well known that a child may have a greater likeness to the father, or to the mother; that goes without saying, as far as the primary sexual characters (the sexual glands) are concerned. But it is also possible that the determination of the latter—the weighty determination whether the child is to be a boy or a girl—depends on a slight qualitative or quan-

titative difference in nuclein or the colored nuclear matter which comes from both parents in the act of conception." (Ev. Man, p. 57.)

Haeckel continues, (p. 57):

"Quite in harmony with this new conception of the equivalence of the two gonads (ovum and spermatozoön) on the equal physiological importance of the male and female sex-cells and their equal share in the process of heredity, is the important fact established by Hertwig that in normal impregnation only one single spermatozoön copulates with one ovum; the membrane which is raised on the surface of the yolk immediately after one sperm-cell has penetrated, prevents any others from entering. All the rivals of the fortunate penetrator die without." (Ev. Man, pp. 57-58.)

Sec. 17. Germ-Cell Does Not Contain Any Skeleton, Model nor Performed Outline of the Coming Embryo

At this point it should be noted that the stem-cell does not contain any skeleton, model nor other preformed outline of the coming embryo for the following reasons: (1) neither the ovum nor the spermatozoön contains any such skeleton, model nor outline; and if each of them contain such a thing, both would be destroyed when these primary cells fuse and merge into the germ-cell. (2) The germ-cell first divides into two, four, eight, sixteen, thirty-two, and sixty-

four daughter cells, and so on into the millions; and this segmentation of the stem-cell and daughter cells would surely annihilate any skeleton, model or other outline that might exist in the germ-cell; (3) the germ-cell first divides into two daughter-cells and so on, to infinity, as already stated; and these daughter-cells form what are called "germ-layers" or sheets of cells from which the human body and all of its organs and parts are built up. (Haeckel, *Ev. Man*, pp. 14, 16, 59, 92; *Encyc. Brit.*, (9th ed.) 3, p. 682; 8, pp. 165, 744; 24, p. 631; *Cent. Dic.* 3, p. 2500, "Germ-layer.")

This mode of growth, by the segmentation of cells and formation of germ-layers, is called "epigenesis" which Huxley defines as "the successive differentiation of a relatively homogeneous rudiment, into the parts and structures, which characterize the adult." (*Encyc. Brit.* 8, p. 744. *Cent. Dic.* 3, p. 1968, "Epigenesis.")

According to the theory of *epigenesis*, which is now held by all the scientific world, the human body grows anew from the germ-cell, without any skeleton model or any other kind of preformation.

"Every living thing," says Huxley, "is evolved from a particle of matter, in which no trace of the distinctive characters of the adult form of that living thing is discernible. This particle is termed a *germ*." (*Encyc. Brit.* (9 ed.) 8, p. 746.)

He defines a germ as "matter potentially alive, and having, within itself, the tendency to assume a definite living form;" and says that this definition

“appears to meet all the requirements of modern science.” (Encyc. Brit. (9 ed.) 8, p. 746.)

“In all cases,” he says, “the process of evolution [growth] consists in a succession of changes of the form, structure and functions of the germ [fertilized ovum], by which it passes, step by step, from an extreme simplicity, or relative homogeneity, of visible structure to a greater or less degree of complexity or heterogeneity; and the course of progressive differentiation is usually accompanied by growth, which is effected by intussusception.” (Encyc. Brit. 8, p. 746.)

Huxley is surely mistaken in saying that “the process of evolution [development and growth] consists in a succession of changes in the form, structure and functions of the germ,” for the germ (fertilized ovum) immediately divides into two daughter-cells, these into four, these into eight, sixteen and so on to infinity. Thus, it appears that germ (germ-cell) becomes “a drop in the sea,” its identity being wholly lost. Huxley states this fact, in substance, in the quotation below.

“The substance,” he says, “by the addition of which the germ is enlarged is in no case, simply absorbed ready-made from the not-living world, and packed between the elementary constituents of the germ. * * * * * The new material is, in a great measure, not only absorbed but assimilated, so that it become part and parcel of the molecular structure of the living body into which it enters. And so far from the fully developed organism’s being simply the germ plus the nutriment which it has absorbed, it is probable that the adult contains neither in form, nor

in substance, more than an inappreciable fraction of the constituents of the germ; and that it is almost wholly made up of assimilated and metamorphosed nutriment. In the great majority of cases, at any rate, the full grown organism becomes what it is by the absorption of not-living matter, and its conversion into living matter of a specific type. (Encyc. Brit. (9 ed.) 8, p. 746.)

The substance of these quotations is that the germ (fertilized ovum) has, "within itself, a tendency to assume the form of a man or woman. But, as above remarked, this is not true. On the contrary the "germ" divides into two daughter-cells, and these continue to divide until millions of them are produced. These daughter-cells are so distributed, combined, differentiated, grouped and arranged as to produce the embryo body with all its organs and parts. According to Huxley and other materialists the "germ" and its daughter-cells do all this work spontaneously without the aid or guidance of any extraneous psychic or creative force. Is this possible?

Sec. 18. Germ-Cell Has No Inherent Power to Evolve, Spontaneously and Automatically, the Body and Organs of the Embryo

The germ-cell (fertilized ovum) has no brain, no eyes, ears, nose, touch, nor taste—no brain nor sense-organs—no organs whatever. It has no knowledge of chemical elements; nor of their affinities; nor of their combinations. It has no knowledge of mechanical arrangement; no knowledge of the human body nor of its organs and parts; nor of their chemical constituents; nor of their mechanical arrangement. It has no idea of time nor space; nor of the adaption of a means to an end; nor of a contrivance.

The germ-cell has no memory of any of these things, for it is impossible for any being to remember a thing that it never knew. This would be a contradiction of terms—an absurdity. I know that Haeckel and other writers speak of “unconscious memory,” “organic memory,” etc. But these are vagaries of the evolutionist and materialist, having no foundation in fact.

So far as our experience goes, there is no such thing as intellect nor memory without and apart from a living physical body. Before there can be intellect or memory, there must be such body to serve as its dwelling place. It is absurd to suppose that the spermatozoön, the ovum or the fertilized ovum has

intellect or memory. But even if any of the three has either of these faculties, it would be preposterous to suppose that the spermatozoön, ovum or fertilized ovum, remembers anything that happened before the atoms, of which it is composed, were grouped together as such. In other words, we cannot even imagine that any living being remembers anything that happened before it came into existence as such being. It is too clear for argument that no parent ever transmits to his or her child the memory of any thing that he or she ever saw, heard, felt or knew. Every man knows that he has no memory of anything that happened to either of his parents. It follows that the memory of each animal is limited to the period of his own existence, as such; and that there is no such thing as "unconscious memory," or "organic memory," in the sense in which these terms are used by the evolutionist.

But "unconscious memory," "organic memory," etc., if there were any such thing, have no constructive force. I might have a vivid memory of every spring, wheel, and part of a watch and yet have no power to make one. So, an anatomist may know and remember every bone, muscle, artery, vein, nerve and part of the human body; but this knowledge and memory would not enable him to form the chemical combinations and make the mechanical arrangements necessary to construct the human body and impart life to it.

Nor has the germ-cell any will-power to begin and continue the work of building up the embryo body until it is completed. We cannot even imagine that

the germ-cell has the semblance of a will in any sense of the term.

To construct the embryo body a sufficient number of atoms of the necessary chemical elements, such as carbon, hydrogen, nitrogen, oxygen, etc., must be selected, assembled at the proper places and there combined, in certain proportions, to form the required chemical combinations; next these combinations must be grouped and mechanically arranged in such a manner as to form the embryo body, with all its organs and parts in their proper places.

Can the germ-cell, and the millions of daughter-cells arising from it, do this miraculous work, automatically, without the aid and guidance of the Creator?

Let us imagine that Edison or some other scientific man should build a tank large enough to hold a brick house with six rooms; that he put into the tank a "magic brick," composed of silica, aluminum, iron, lime, magnesia, manganese, soda and potash combined in the proper proportions, (*Encyc. Brit.* 4, p. 280); that he turned a stream of water, charged with these elements, upon the brick; that it absorbed these substances from the water and assimilated them into its own body; that it afterward split into two "daughter-bricks," these two into four, these into eight, sixteen, thirty-two, sixty-four, one hundred and twenty-eight, and so on to infinity; that these brick, automatically, assumed such positions on top of each other as to build up the four walls of the house, without the aid of man or any other psychic force; that the bricks left spaces for doors, windows, etc; that they also built up the chimneys, fire places, etc; that some of

the bricks, spontaneously, metamorphosed themselves into marble slabs for window-sills, door-sills, hearth-stones, etc.; that other bricks were converted into oaken mantels, with mirrors, etc.; that others were converted into slabs of slate and assumed the proper form, size and positions to form a slate roof!

If any such thing should ever happen it would be justly considered a great miracle.

But the development and growth of the embryo are far more mysterious and wonderful than the building of a house in this manner would be; for the embryo is a live miniature model of a man or woman—the work of a supernatural creative force—Almighty God.

Huxley says, in substance, that the germ-cell has “within itself the tendency to assume a definite living form.” He also says “that the great characteristic of the germ is, not so much what is, but what it may, under suitable conditions, become.”—(Encyc. Brit. (9 ed.) 8, p. 746.)

The common belief of mankind, in general, is that the germ-cell, spontaneously and automatically, develops and grows to be a man or woman, without the aid of any extraneous psychic or creative force.

But it is clear that the germ-cell divides into two, four, eight, sixteen, thirty-two and sixty-four daughter-cells; and so on to infinity. It follows that the germ-cell is annihilated within a few hours after it is formed; and that its identity, as the germ-cell is wholly lost in the myriads of daughter-cells which arise from it, and go to build up the embryo body;

each daughter-cell containing, theoretically, a portion of the germ-cell.

It follows that the germ-cell has no tendency "within itself to assume a definite living form;" nor has it any power to become a living form, nor anything else.

Obviously, the microscopic germ-cell, when whole, would be powerless to develop and grow to be a man or woman; and for a much stronger reason the infinitesimal fragments of it would be powerless to do these things.

Apparently, the Creator uses the germ-cell to inaugurate the growth of daughter-cells in the embryo body, in the same manner that a grain of wheat is used to start the growth of a stalk of wheat.

Sec. 19. Reproduction, its Phenomena

All the phenomena of reproduction may be grouped under the following heads: (1) Production of the spermatozoön, (2) production of the ovum, (3) their fusion into the fertilized ovum, (4) production of daughter-cells, (5) distribution, mechanical arrangement and grouping of cells, (6) differentiation of cells into the different tissues, (7) waste of cells.

Sec. 20. Spermatozoön, its Production

The first step toward the reproduction of a man, woman, or any other mammal, (an individual of a species which suckles its young), is the formation of

a spermatozoön in the genital organs of a male. See Index, *infra*, "Spermatozoön."

Sec. 21. Ovum, its Production

The production of an ovum in the genital organs of a female is the second step. It is immaterial which of them is produced first. The essential point is that they shall meet and fuse into the fertilized ovum.

See Sec. 14, *supra*; Index, *infra*, "ovum."

Sec. 22. Germ-Cell, its Production

The third step is the fusion of the spermatozoön and ovum into the germ-cell, stem-cell or fertilized ovum. See index, *infra*, "germ-cell," "stem-cell," "fertilized ovum."

Sec. 23. Daughter-Cells, Their Production

The fourth step is the production of daughter cells. The germ-cell (fertilized ovum) is the primordial cell, from which every other cell in the human body is directly or indirectly, produced by fission or self-division. As already stated, the germ-cell divides into two daughter-cells, these into four, these into eight, sixteen, and so on to infinity. Every cell is composed of a vast number of atoms. A portion of

these atoms is differentiated into "the inner nucleus (caryoplasm)" and "the body of the cell (cytoplasm)." (Haeckel, *Ev. Man*, p. 38.) Again he says: "In a mesh of the nuclear net-work * * * * there is, as a rule, a dark, very opaque, solid body, called the nucleolus." (*Ev. Man*, p. 38.) On another page, he says: "Some cells have a 'nucleolinus' in the center of the nucleolus." (*Ev. Man*, p. 40, fig. 9.)

We cannot believe that any microscopic cell, in the human body has intellect, memory, will-power nor creative force. For a stronger reason, we cannot imagine that any of the atoms of which any cell is composed, has these faculties. Nor can we conceive that a portion of these atoms, automatically, metamorphose themselves into a nucleolus, others into a nucleolinus, while the remainder continue to be a simple cell-body.

How do the cells know when the time has come to divide into two daughter-cells; where the dividing line should run in order to divide the cell-body, nucleus and nucleolus into two equal parts? For further discussion of cells see *Index, infra*, "cell."

Sec. 24. Animals, Their Sizes are Determined, How?

Why does the elephant grow larger than the mouse. Both are mammals and are built of cells. The mouse has identically the same organs and parts that the elephant has. The mode of reproducing each is the same as that of the other. The spermatozoön, ovum and germ-cell are common to both.

How does it happen that all normal adult individuals of each species of animal in a given region and of each sex, have substantially the same form and size, called: "the mode?"

The reader may reply that nature fixes the size and form of every individual of each species. The evolutionist will say that the law of heredity and environment determine the sizes and forms of animals and plants; that the mouse is small because his ancestors were small; that the elephant is large because his were large.

But these replies do not explain the phenomena. Each animal grows anew, for itself. His body is a new combination of the atoms and cells of which it is composed. The forces and motions employed in its construction are new and peculiar to it. When the cells in an embryo body begin to grow there is no apparent reason why they should not continue to grow and multiply, forever. Now, what psychic force or agency ascertains and determines when the work of building up the animal body has been completed? What force or agency equalizes the growth and waste of cells in a mature animal body and keeps it of the same form, size, and weight until the decay of old age comes on?

The size of every animal depends upon the size and number of cells in his body; and its form is determined by the manner in which these cells are grouped together. For example there are more cells in the nose (trunk) and teeth (tusks) of the elephant, in proportion to the size of his body, than there are in those of the mouse in proportion to his. It is

clear that a mouse would grow to be as large as an elephant if the cells in his body continued to grow and multiply for a sufficient period of time. Why do the cells cease to multiply when the mouse has attained a certain size? Why do they stop work in the elephant's body when he gets his normal growth? Do the cells in the mouse and those in the elephant know when their work is done? How do they know it?

The materialist denies the existence of a First Cause and maintains that every animal and plant is the result of "a natural continuous and necessary evolution." (Haeckel, *Evolution of Man*, p. 26.) Huxley says, in effect, that "secondary causes" produce all the phenomena of the physical universe; and that man and the rest of the living world "are all co-ordinated terms in nature's great progression." (*Man's Place in Nature*, pp. 150-151.)

But it appears that the materialist maintains that the law of heredity is fixed and unchangeable, at all events it is proof against secondary causes. For example, no sort of treatment, nor any kind nor quantity of food will make a mouse grow to the size of an elephant nor any larger than his ancestors were. Food and environment are "secondary causes;" but they have no power to change the form nor the size of the animal body.

Since all normal adult individuals of each species of animals, all over the earth, and in every age, have substantially the same form and size; and since each individual is built up, anew, of new cells (or atoms) by new forces and motions, we are compelled to assume that the same psychic force or agency determines

the number of cells which shall go into each normal body, and the manner in which these cells shall be grouped together. In brief, the same supernatural psychic and creative force, always, determines the form and size of each animal, all over the earth.

Sec. 25. Distribution and Grouping of Cells in the Embryo Body

As already stated, every man and woman begins life as a germ-cell or fertilized ovum. This cell grows and divides into two daughter-cells; these into four, eight, sixteen, thirty-two, and so on. At first these daughter-cells are so distributed and grouped as to form a solid ball called, "the morula;" next they take the form of a hollow ball, called "the blastula" with a single layer or sheet of cells and a fluid in the center; next a group of cells with two layers, called "the gastrula;" then they are so distributed or grouped as to form two germ-layers or sheets of cells, then into three layers, then into four. At this point a portion of the cells is so grouped as to begin the formation of the spinal cord and brain; and in course of time, other cells are so distributed and grouped as to form the bones, muscles, nerves, arteries, veins, heart, lungs, stomach, liver, kidneys, intestines, arms, hands, legs, feet and other organs and parts of the body.

The form of any animal body and each organ and part of such a body, depends upon the manner in which

its cells are distributed and grouped. Thus, the form of the whale, elephant, giraffe, camel, lion, tiger, hippopotamus, alligator, python, horse, cow, eagle and humming-bird, is produced by the distribution of the cells or atoms in their bodies. If a man has a very large head, a long nose or big foot we are compelled to infer that these peculiarities are the result of depositing an unusual number of cells ("organic bricks") in these parts of his body.

Sir Isaac Newton states his first law of motion in the words following:

"Everybody continues in its state of rest, or of uniform motion in a straight line, except in so far as it is compelled, by force, to change that state."—(Encyc. Brit. (9 ed.) 15, p. 676.)

For example, if one should lay a stone on the ground it would remain there forever, unless moved by some sort of force. It would be absurd to suppose that the stone could, automatically, move itself.

There is no such thing as making *any thing* out of *nothing*. Every thing is made of some other thing. The body of the horse is made of corn, hay and other vegetable and mineral substances. So the human body is made of bread, meat and other food-stuffs, eaten by the mother before birth and by the individual, himself, after birth. The germ-cell is deposited in the womb of its mother. It cannot develop nor grow, unless it receive nourishment from her body. She eats bread, meat and other things, these are converted into blood, and a portion of it is carried, by the force of her heart and arteries, to the germ-cell; it absorbs and assimilates a portion of the blood; produces cells;

and these are so distributed and grouped as to form the embryo body with all its organs and parts.

It is obvious that the father has nothing to do with the circulation of the mother's blood, which conveys nourishment to the embryo; it is equally clear that she has no conscious part in the circulation of her own blood, and that she has no power nor control over the development nor the growth of the embryo, except such as she may exert indirectly by the food which she eats.

The embryo begins life as a germ-cell. Atoms of building material must be conveyed, by the blood of the mother, to this cell, otherwise, it cannot develop nor grow. As new cells are produced, they are so distributed and grouped as to form the several organs and parts of the embryo body; or it may be said that new cells are produced and added to older cells, at such points as to build up the embryo organs and parts. For example, arm-buds and leg-buds appear on the surface of the trunk, as slight swellings or projections; new cells are added to these buds; they grow, in length, by the addition of cells at the distal (outer) ends, until they have attained the proper length, terminating in the fingers and toes. So the arms and legs grow to some extent in diameter by the addition of new cells; but the number of cells, which go to extend the length of the arms and legs, greatly exceeds the number which go to increase the diameter.

Every atom in a cell is a physical body, like a brick, and must be moved by extraneous force, having no power to lift and move itself, automatically. It may be said that the heart and arteries of the mother

furnish the energy, which moves the atoms to the building site of the cells, in the first instance. But the atoms are not only moved; they are carried at the proper time and deposited at the right place to build up the organ or part which is being constructed. We cannot believe that the mother has any knowledge of, nor power over, the distribution of the atoms and cells, which go to build up the embryo body; nor can we even imagine that the embryo itself distributes them. So it would be absurd to suppose that the atoms and cells move and distribute themselves, automatically, in such a manner as to build up the embryo.

How do the cells know when to begin the formation of the morula? How do they know when it has been completed and when to begin the construction of the blastula? How do they know when to take the form of the gastrula, and when to enter the next stage?

The forces and motions required to build up the morula (a solid ball) are different from those required to construct the blastula (a hollow ball) and the gastrula (a two-layered hollow group of cells with an aperture at one end of it); the morula, blastula and gastrula, each, requiring forces and motions peculiar to itself. Now, what psychic force stops the forces and motions, which build up the morula, and sets to work the forces which construct the blastula and afterward the gastrula?

It is obvious that these cells, (if there be enough of them), may be so grouped as to form a sphere, cube, cylinder, plate or any other figure; and that any of these may be solid, hollow or porous. The head, brain,

heart, kidneys and some other parts of the embryo, approximate the form of a sphere; the trunk, arms, legs and many bones are approximately cylindrical; other bones take the form of a plate, for example the bones of the skull. The form and shape of the embryo, and of every organ and part of it, depends entirely upon the manner in which its component cells are grouped.

How is it possible for these unthinking microscopic cells to know at what point to begin, and in what direction to grow, and in what manner they shall group themselves, in order to construct the skeleton, brain, spinal cord, heart, lungs, stomach, liver, kidneys, etc.?

The only reasonable hypothesis is that the production and placing of cells in the embryo body are directed and controlled by a supernatural psychic and creative force.

After the formation of a rudimentary head and trunk, two "arm-buds" and two "leg-buds" appear on the surface of the trunk. At first these "buds" are slight swellings or projections, but they soon take the form of a cylinder and continue to grow mainly in length and slightly in diameter, until the man or woman has finished his or her growth. Every embryo that ever existed, grew and behaved in this same manner, thus showing that the same supernatural psychic and creative force directed and controlled the growth and deposit of cells in the body of every man and woman that ever lived.

How could the cells possibly know at what point, on the body of the embryo, to group themselves to-

gether in order to build up the arms and legs? How could they contrive to give the arms and legs the form of a cylinder, the length being several times as great as the diameter? How could the cells possibly know that there should be only one bone in each arm above the elbow and two below the elbow and the wrist? How could they know the number of bones that should be placed between the wrist and fingers? How could they know that there should be a thumb and four fingers in each hand and the number of joints in each finger? How could it be possible for the blind unthinking cells to build up the two legs and feet, with all their bones, processes, joints, muscles, nerves, arteries, veins, etc., without the aid and direction of a supernatural psychic and creative force?

We are, therefore, compelled to assume that the Creator generates, guides, and controls the forces which distribute and group the atoms and cells in the body of the embryo.

Sec. 26. Distribution and Grouping of Cells in the Embryo Body, Continued

The atoms and cells of which the embryo body is built up, and those of which each organ and part is made, are carried to "the building site" and there grouped by force. This force, whatever it may be, must be sufficient to overcome the force of gravity and the friction, which one atom or cell encounters in moving on the surface of another. This force must

be guided and controlled by a Being with a conscious intellect, memory and will-power in order to build up the embryo body, or one of its organs, and give it the proper form and size; for the right number of atoms or cells must be carried to "the building site" of each organ and part, or it will be too large or too small, and out of proportion to the other parts of the body; and these atoms or cells must be so grouped as to give the organ or part the correct form—not too long, too wide nor too thick; else it will not fit into its place, nor be in harmony with the other parts of the body. Intellect, memory and judgment are necessary to construct the body or any part of it with atoms or cells, for the builder must know the anatomy of the body; must know the time when each part of the work must be done; must know the relation of each part to every other part; must know the proper form and size of each part, and the present form and size; must compare each part with every other in order to preserve harmony and due proportion among all the parts, in form, size and function.

The atoms of lime, phosphorus, carbon and oxygen, are assembled in the body of the embryo and combined in such manner as to make the rudimentary bones rigid and stable; others are assembled, combined and so grouped as to form the muscles; others to form the brain, spinal cord and nerves; others to form the arteries, veins, etc.; each of these tissues has its own chemical composition and molecular structure, radically different from the composition and structure of every other tissue. Moreover, these chemical and molecular changes (specializations) are made side by

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side at the same time, all at once, the muscles being attached to the bones, and the nerves, arteries and veins, ramifying through the muscles, bones, etc. Not only so, but the atoms and cells, which form the bones, muscles, nerves, arteries, veins, etc., are assembled, grouped and specialized at the exact points, at which these tissues are needed to build up the embryo body.

What force or agency does this miraculous work? Surely, it is not the father, nor the mother. It is not done by accident nor by chance, for the same things happen in the development and growth of every normal embryo body in every age and country the world over. All this wonderful work is done in every embryo body by the same psychic and creative force, whose work is uniform, continuous and everlasting.

The evolutionist says the development and growth of an embryo results from "heredity;" that the child develops and grows as it does because its father and mother and all their ancestors, for thousands of generations developed and grew in the same manner; and that the embryo develops and grows by "a natural continuous and necessary evolution."—(Haeckel, *Ev. Man*, p. 26.)

This is absurd, for the cells which build up the embryo, are new combinations of the atoms of which they are composed; each embryo develops and grows anew for itself; neither the germ-cell nor any of its daughter-cells has any knowledge of the father, nor of the mother; nor of their mode of development and growth; nor of their organs and parts; nor has the embryo any power nor control over its own development and growth, nor to imitate the development and

growth of its parents, even if it knew how they developed and grew.

Sec. 27. Differentiation (Metamorphosis) of Simple-Cells Into Bone-Cells, Mus- cle-Cells, Nerve-Cells, Vascular- Cells, Gland-Cells, Etc.

A cell is said to be “a simple-cell,” when it is composed of carbon, hydrogen, nitrogen and oxygen, with a possible trace of phosphorus and sulphur,—when it consists of plain protoplasm—and before it has been differentiated into a bone-cell, muscle-cell, nerve-cell or the like. To convert a simple-cell into one of these specialized cells certain atoms must be added to it, or taken from it; or certain atoms must be taken away and others added to it; or the chemical combination of atoms in it must be broken down and new ones formed. There is no change in the properties of the chemical elements, which compose the human body. For example, the nature and properties of carbon, hydrogen, nitrogen and oxygen remain the same whether they are in or out of the body, and the same is true of every other element.

The differentiation of simple-cells into bone-cells, muscle-cells, nerve-cells, vascular-cells, gland-cells, etc., is effected by changing the chemical elements, which enter into their composition; or by changing the proportion of these elements to one another and altering

their molecular structure. In fact, it appears that every differentiation and specialization of any animal, or of any organ or part of one, is accomplished by changing its chemical constituents; or by changing their relative proportions to one another and thereby modifying its molecular structure, and by changing the mechanical arrangement of its atoms and cells.

The entire work of building up the embryo body is done by making new chemical combinations and new mechanical arrangements of the atoms and cells of which it is composed.

Referring to the residue of the dry bone, which remains after calcining it (burning away the soft parts of it), Professor Martin says:

“The residue forms a white, very brittle mass, retaining, perfectly the shape and structural details of the original bone. It consists of normal calcium (lime) phosphate or *bone-earth* ($\text{Ca}_3, 2\text{PO}_4$); but there is also present a considerable proportion of calcium [lime] carbonate (CaCO_3) and smaller quantities of other salts.” (Martin, Human Body, p. 90.)

Under the head: “The Chemistry of Muscular Tissue,” he says:

“Muscle contains 75 per cent of water; and among other inorganic constituents, phosphates and chlorides of potassium, sodium and magnesium.” (Human Body, p. 123.)

According to this statement there is no lime in the muscles; and we cannot believe there is any of this substance in any tissue of the body except the bones; for every other tissue is soft and flexible. It is clear that the purpose of putting lime into the bones,

is to make them rigid and stable in order to support the body and keep all its organs and parts in place.

What force or agency assembles the atoms of lime, phosphorus, carbon and oxygen, and combines them into the phosphate of lime, and the carbonate of lime, to make the bones rigid and stable? Surely, it is not the father, nor the mother, nor the embryo itself. It would be preposterous to suppose that the atoms of lime, phosphorus, carbon and oxygen, of their own motion, and automatically, assemble and combine themselves, chemically, in such proportions as to form the phosphate of lime, and the carbonate of lime in the bones; and that these atoms of the phosphate and carbonate of lime group themselves, automatically, into such mechanical arrangements as to form the bones with all their processes, joints, cavities, perforations, etc., and fit them together in the form of the skeleton.

The formation of bones in the body of a single animal, might, possibly happen by accident or chance. But when bones are formed in the bodies of all animals of the same species for thousands, or millions, of years, and when all of them, in the bodies of each species, have the same chemical composition, the same structure, form and size; we are compelled to assume that the same cause, force or agency, which produces bones in each body, also produces them in every other body. In brief that all bones are made by the same supernatural psychic and creative force. The same is true of every other tissue.

But the evolutionist says that "heredity" works for the result. In other words, that this metamorphosis of simple-cells into bones, muscles, nerves, etc., hap-

pens because certain similar cells in the bodies of the father and mother were changed in the same manner. He overlooks the fact that the cells, bones, etc., in the embryo body are new and altogether different from those which were metamorphosed in the bodies of its parents and that the forces which did that work were exhausted in doing it. He forgets or ignores the fact that neither the germ-cell nor any of its daughter-cells has any intellect, memory, will-power or creative force; that they have no knowledge of chemistry, nor of lime, phosphorus, carbon, oxygen, nor of their affinities; nor of bones; nor of their forms, sizes and functions.

The differentiation and specialization (metamorphosis) of cells and tissues; and their mechanical arrangement and grouping into the several organs and parts of the embryo body are not the work of blind mechanical forces; nor of chance; nor of accident; nor of unthinking cells; but of the Almighty Creator.

Sec. 28. Waste of Cells

So soon as the embryo begins to grow, the waste of cells begins; and continues until the death of the individual, however long he may live. "The knowledge is wanting," says the *Britannica*, "which would tell us, when a certain limit has been attained, the process of income and expenditure balance and growth ceases."—(*Encyc. Brit.* 17, p. 686.) "During life," says Professor Martin, all the formed elements of the

body are constantly being broken down and removed; either molecularly, (that is bit by bit), while the general size and form of the cell or fibre remains unaltered) or in mass, as when the hairs and the cuticle are shed." (Martin, Human Body, p. 670.)

See Encyc. Brit. 17, pp. 686-687; Martin, Human Body, pp. 451-476, 670-671; New International Encyc. 9, pp. 312-315.

The waste of cells affects the growth of the body, only so far as it tends to neutralize and offset the increase of the body by the multiplication of cells.

Sec. 29. Embryo Body is Built up of Inanimate Atoms Except the Germ-Cell

The germ-cell (fertilized ovum) is the physical basis of every human body. Such an ovum is said to be potentially alive because it may, with the aid of the Creator, develop into a living individual. Excepting this tiny bit of flesh-like substance, which is barely visible to the naked eye, and which is not one trillionth part of the infant at birth, every part of the human embryo is built up of inanimate atoms, which are carried and distributed to the growing embryo by the blood of the mother. These dead atoms are then assimilated by the embryo and incorporated into its growing body.

The fertilized ovum is soon split and divided into millions of pieces, by the division of cells, and lost in the general mass of the embryo body like a drop in

the sea. It appears that the chief office of the fertilized ovum is to inaugurate the growth and multiplication of cells, which are, finally, differentiated and specialized into the several organs and parts of the embryo body.

These facts serve to show the extent of the supernatural creative work done in the embryo body. It is a new living body, with all its organs and parts made of inanimate matter, except the germ-cell.

Sec. 30. Embryo Body; Each is Produced Anew

The embryo is built of certain chemical elements, namely: carbon, hydrogen, nitrogen, oxygen, etc. See sec. 3, *supra*, and index, *infra*, "Chemical elements." It derives its properties and potentialities from certain chemical combinations and mechanical arrangements of these elements, and from life. All of these combinations and arrangements are made after the formation of the fertilized ovum. Even if this ovum and its daughter-cells could build up the embryo body, automatically, yet it must grow anew for itself, independently of the growth of the bodies of its parents, or any other person; for it must have its own body, and not that of its father, mother, nor of any other person. It is composed of new materials, except the fertilized ovum, which is too small to be considered in comparison with the body of the embryo, as a whole.

These new materials are derived from the blood of the mother.

No embryo ever takes or uses any organ or part of the body of its father, or mother, except the spermatozoön and the ovum, which form the germ-cell and serve as a germ to start the growth of the body. Each embryo is a new combination and a new arrangement of the atoms and cells of which it is composed. It is produced by new forces and motions peculiar to itself, which are similar to, but different from, those which produce every other embryo body. It is admitted on all sides, that every human being begins life as a fertilized ovum. It is well known that this infinitesimal cell has no organs, whatever, it being a mere atom. In no sense can it be called an embryo body. Each person must have his or her own body. No one ever takes or uses the body of any other person, nor any organ or part of such a body, such a thing being unthinkable. It follows, necessarily, that each embryo body and every organ and part of it, is produced anew, independently of every other human body.

Do the atoms and cells of which the embryo body is built up, spontaneously and automatically, form the chemical combinations and make the mechanical arrangements, which are necessary to build up the embryo body; or is it made by a supernatural psychic and creative force? Which hypothesis is most plausible?

Sec. 31. Heredity has no Power to Generate a New Human Being; nor to Evolve One from the Germ-Cell

Heredity is defined as: "The influence of parents upon offspring; transmission of qualities or characteristics, mental or physical, from parents to offspring." (Cent. Dic. 4, p. 2802.)

Intellect, memory, will-power, force and motion are necessary to group two or more atoms into a prescribed chemical combination or into a specified mechanical arrangement. It is a well-known fact that each normal human body is composed of the same chemical elements; has the same chemical combinations and the same mechanical arrangements that are found in every other such body. Therefore, we may well say that the atoms and cells in the body are grouped into prescribed chemical combinations and into specified mechanical arrangements; and that intellect, memory and will-power are necessary to make these combinations and arrangements.

It is also well known that every human being, begins life as a germ-cell, stem-cell, or fertilized ovum, all of these phrases meaning the same thing; that every such body develops and grows anew for itself. Each body is a new combination of the atoms and cells, of which it is composed. The forces and motions, which assemble and group these atoms and cells into the chemical combinations and mechanical ar-

rangements, which build up a body, are new, unique and peculiar to that body.

The theory of heredity is based on these facts: The father contributes the spermatozoön and the mother the ovum, which form the germ-cell; this cell and its daughter-cells develop and grow to be a man or a woman, who has substantially the same form, size, structure, organs and parts that one of its parents has, and generally has some of their qualities, characteristics and traits.

But these facts do not prove that the child inherits anything from either parent; they do not prove that the parents, or either of them, caused the child to develop, grow and resemble them in any of these particulars. The existence of a fact and the cause of that fact are two different things. Thus, every body knows that a stone falls to the ground; but nobody knows why. The child resembles its father—but why? Do the parents cause this resemblance? Can they, or either of them, cause their child to have blue eyes or black; a long or short nose; a large or small foot?

Neither Darwin, nor any other man has ever shown how it is possible for the bodies of the parents, or any part of either of them, to affect, modify or determine the form, features, size, structure, qualities, characteristics or traits of their children. It is admitted on all sides that the parents have no voluntary control over these things. Darwin, (*Origin of Species*, 1, p. 15), says: "The laws governing inheritance are for the most part unknown." Haeckel is voluminous in describing the phenomena of reproduction, hered-

ity, etc. But has nothing to say about the cause, nor the mechanism of heredity.

It is undoubtedly true that the human body is a compound physical structure; that each organ and part of every such body has to be made, anew, of fresh materials, for that body; that the child does not "take over," bodily, any organ nor part of either parent, but has its own new organs, unique and peculiar to itself; that neither the father nor the mother has any voluntary power to select, assemble nor group the atoms and cells, of which the embryo body is made; nor to generate, guide, nor control the forces and motions by which this work is done. All this being true, how is it possible for the parents, or either of them, to transmit any of their qualities, characteristics or traits to their child?

The notion of mankind in general appears to be the body of the child is a sort of offshoot or branch of the bodies of the parents, as if the child had budded out on the trunk of the mother; and finally dropped off and become a distinct individual. But this view is wholly erroneous. The embryo becomes a separate and distinct entity the moment the germ-cell is formed; and it develops and grows, anew, for itself independently of the bodies of its parents, which have no more to do with its development and growth than the body of any other person has.

If we assume that each human being is a new direct and special creation by Almighty God, we can readily understand the mysterious phenomena called "heredity."

At first, the germ-cell does not resemble either

parent nor even a human being, it being too small, even to suggest a human body, at all. An infant at birth, is too rudimentary to resemble either parent more closely than it does any other person of the same sex.

Whether the germ-cell and its daughter-cells are to develop and grow to be a man, resembling its father; or a woman resembling its mother, the same forces and motions are required to assemble and group the necessary atoms and cells into the proper chemical combinations and mechanical arrangements in order to construct its body. The fact that the child may resemble its father or its mother or both of them, does not dispense with the assembling of the atoms and cells; nor with the grouping of them into the necessary combination and arrangements. It is clear that the same or similar forces and motions are necessary to construct any animal body, whatever its form, size or sex may be.

According to the evolutionist and materialist, the fact that the child resembles its parents is adequate to account for, and explain all the phenomena of reproduction. But the existence of this resemblance, and, the cause of it, are two wholly different things. The fact that the child resembles its parents only deepens the mystery; for it would require less knowledge, skill and creative force to construct a body with the qualities and characteristics of mankind in general, than it would to group the atoms and cells of the body in such a manner as to produce a body in the image of a particular man or woman. Thus a portrait painter could make a fancy sketch of an imag-

inary person, without any striking features, more easily than he could paint a particular man with all his peculiarities; as, for example, his bald head, high forehead, blue eyes, long aquiline nose, wide mouth, massive lower jaw and tall, slender body. The closer the resemblance, between the child and its parents, the greater the mystery.

It being a fact that the body of the child has identically the same organs and parts that are formed in the body of its father, or in that of the mother; and that the child closely resembles one or both of them, we naturally inquire: "What force or agency causes the germ-cell and its daughter-cells to develop and grow until they become a man, like its father; or a woman like its mother? We cannot even imagine that this sameness of organs and parts, of structure, form and size, and this close resemblance happens by chance or accident.

Every man has conscious knowledge that he had no voluntary part in the production of his child, except that he placed the spermatozoön at a point from which it could reach the ovum. The mother knows that she had no voluntary part nor agency in the production of her child except that she permitted the father to place the spermatozoön in reach of the ovum. Neither of them has any voluntary power, nor any control over the formation of the spermatozoön nor of the ovum; nor over the development and growth of the child, nor over its structure, form, size nor over its features.

The spermatozoön is a microscopic cell, $1/500$ th of an inch in length, (Martin, Human Body, p. 651),

the head, which is the largest part of it, being, apparently about 1/10,000th of an inch in diameter, (Haeckel, *Evolution of Man*, p. 53, fig. 22.) It consists of a homogeneous mass of protoplasm, composed of carbon, hydrogen, nitrogen and oxygen; and sometimes has a trace of phosphorus and sulphur. (Cent. Dic. 6, p. 4799; Huxley, *Anat. Invert. An.* pp. 9, 14.) See index *infra*, "Spermatozoön." Although the spermatozoön is not visible to the naked eye, and has certain vital properties and potentialities, yet it is a physical body with all the attributes of a brick or stone.

If any quality, characteristic or trait of the father passes from him to his child, it is transmitted by, and through the spermatozoön, for that is the only thing that passes from the one to the other. So, if any quality, characteristic or trait of the mother passes from her to her child, it is transmitted by and through the ovum, that being the only thing that passes from her to it.

Whatever power or influence the father's body, or any organ or part of it, may have to affect or modify the body of his child or any part of it, must be effected by and through the spermatozoön before it leaves his genital organs; for it is clear that neither the father's body, nor any organ nor part of it, has any power to affect, modify or differentiate the spermatozoön, nor any part of it, after it leaves his body.

It is absurd to suppose that the father's body, or any organ or part of it, can affect, modify or differentiate the spermatozoön, or any part of it, in such a manner that it shall cause the child to have qualities, characteristics and traits resembling those of the fath-

er. In fact he could not possibly know whether there is one, many, or none in his genital organs, at any given time, for a stronger reason no single organ nor any part of his body could possibly affect, modify nor differentiate the spermatozoön in such a manner as to cause the child, which arises from it to have organs and parts resembling those of the father. Thus, suppose the father has blue eyes. How could the father, or his eyes, possibly affect the spermatozoön in such a way as to cause the child's eyes to be blue? How could the father, or his nose, modify the spermatozoön in such a manner as to cause the child's nose to resemble the father's nose. It would be absurd to suppose that the father's brain and his vocal organs can affect the spermatozoön in such a manner as to cause the child to be a notable singer.

Professor Weismann says:

“It is well known that many mental and physical qualities of parents are transmitted to their children, such as the color of the eyes and hair, the shape and size of the finger nails; and not only these, but as everyone knows, even such minute and indefinable physical and mental characteristics as likeness of features, bearing, gait, handwriting a mild and equable or passionate and irritable temperament.”—
(Weismann on Heredity, 2, p. 14.)

The color of the eyes depends on the coloring matter or pigment in the irises. How could the father's eyes possibly affect the spermatozoön in such a manner as to make the child's eyes blue? How could the father's red hair differentiate the spermatozoön so as to give the child red hair? Can we imagine that

the father's finger nails can affect the spermatozoön in such a way as to make the child's nails of the same "shape and size" as those of the father? How could such a thing be? Can we believe that a man's brain, nerves and muscles, can so affect the spermatozoön that the child's handwriting shall be like that of the father? How could this be? How could the father's brain modify the spermatozoön in such sort that the child shall have the same temperament that the father has?

Most of the resemblances between the child and its parents result from education, association and environment. If a child's parents die when it is six months old; and it be placed in the hands of a stranger and his wife; it is easy to see that many of the child's qualities, characteristics and traits would be borrowed from the man and his wife with whom the orphan lives.

The infant, at birth, is merely a living creature without any physical qualities, characteristics or traits peculiar to itself; nor has it any mental qualities, characteristics nor traits, whatever. In fact, it has scarcely any intellect, at all. It follows that most of the physical qualities and characteristics of each person are acquired; and that all of the mental qualities, characteristics and traits of every one are acquired, they being the result of education, association and environment. No doubt most of the resemblance between a child and its parents are caused by education, imitation and association.

The evolutionist has invented divers theories to account for, and explain the phenomena of reproduc-

tion on material and mechanical principles, without the aid of any supernatural psychic or creative force. For example, Darwin invented the theory of "gemmules" and "pangenesis;" Spencer advanced the hypothesis of "physiological units" or "constitutional units," "structural proclivity," or "proclivity towards the organic form of the species;" Cope suggested "bathmism (go-ism)" "simple growth-force," "grade-growth-force" and "excess-growth;" Weismann invented the "continuity of germ plasm," "ids," "iddants" and "determinants." But none of these words or phrases explain anything. If there is anything in nature corresponding to these words none of these writers ever saw them, nor did they know anything about them. These "gemmules," "units," "proclivities," "ids," "bathmisms," etc., are purely hypothetical—mere figments of the imagination. Every body has rejected Darwin's theory of "gemmules," and "pangenesis;" no one but Spencer ever adopted his hypothesis of "physiological units" and "proclivities;" Cope was the only man that ever used "bathmism," etc.; Spencer, Romanes and others gave many reasons why Weismann's "continuity of germ-plasm," "ids," "iddants" and "determinants" were absurd and impossible. No two of them agreed on anything, except the supposed fact of organic evolution. Spencer, somewhere says, in substance, that there is a general belief that organic evolution has occurred; but great diversity of opinion as to the manner in which it has been effected.

The theory of the evolutionist is that the genital organs of a man generate spermatozoä, with all their

properties and potentialities, spontaneously and automatically, without the aid of any extraneous, psychic or creative force, and that those of a woman produce ova in the same manner. He maintains that a spermatozoön and an ovum unite and fuse into a germ-cell (fertilized ovum) and that this cell (germ) then becomes, automatically, a living being; that it develops and grows spontaneously and automatically, to be a man or a woman, without the aid or guidance of any extraneous psychic or creative force, whatever.

As a fact the fertilized ovum does not develop into a man or woman at all, but a vast number of daughter-cells are produced from it, which are metamorphosed and molded by the Creator into a man or woman. The evolutionist holds that the fertilized ovum inherits all its properties and potentialities from its parents. In other words, he contends that the germ-cell develops and grows as it does because its father and mother developed and grew in the same manner. Is there any apparent reason why the germ-cell should develop and grow at all? Why should it develop and grow, spontaneously and automatically, as its father and mother grew? The germ-cell is a new combination of the atoms of which it is composed; the embryo is built up of new materials; wholly different from those which compose the bodies of its parents; and by new forces and motions, altogether different from those which built up the bodies of its parents. How could the mode, in which the bodies of the father and mother developed and grew, possibly affect the development and growth of the child?

The fact that each normal body develops and

grows in the same manner that the bodies of its parents grew, and as every other normal body grows, is conclusive evidence that the development and growth of each human body is caused, guided and controlled by an extraneous supernatural psychic and creative force, which is ubiquitous, all over the earth. No other hypothesis can explain the uniform mode of development and growth, which we observe, among all the mammals in every age and country.

The fact that the child resembles its father or mother, or both of them, is strong evidence that the same creative force made all three of them. We cannot believe that the blind, unthinking cells, which build up the body of the child, automatically, group themselves in such a manner as to make the child in the image of the father or mother.

Everyone knows that each human body is built of atoms and cells, which are assembled and grouped into certain chemical combinations and mechanical arrangements by force and motion, and that there cannot be any such thing as force and motion without, at least two physical bodies, the one to transmit the force and the other to move. The word, "heredity," does not denote a physical body nor a physical force. It is a mere name for a group of vital phenomena. How could heredity bring two or more atoms or cells together? Such a suggestion is too absurd even for the imagination.

Perhaps the orthodox churchman would maintain that the Creator endowed Adam's genital organs with the power to generate spermatozoä; and also endowed those of Eve with the power to produce ova;

that He endowed these spermatozoä and ova with the power to produce new men and woman, automatically; and that He ordained that they should have the power to produce new spermatozoä and new ova, with the same properties and potentialities that were possessed by the original spermatozoä and ova, that were generated in the bodies of Adam and Eve and so on forever.

This brings us back to the proposition that **every** human body is a compound physical structure, composed of atoms and cells, which are grouped into certain chemical combinations and mechanical arrangements; and that intellect, memory, will-power, force and motion are necessary to make these combinations and arrangements. To do this work, automatically, these atoms and cells must be endowed with divine intellect, memory, will-power and creative force; and this is equivalent to a special creation. So if it be said that each fertilized ovum is endowed with the power to produce a new man or woman, the answer is that this endowment is equivalent to a special creation.

The reader may argue that the Creator endowed Adam's spermatozoä and Eve's ova with the power to develop men and women, who were endowed with the power to produce new spermatozoä and new ova, with the same properties and potentialities that were possessed by those of Adam and Eve and so on forever to the nth. generation.

There are several insuperable objections to this theory:

First.—It is inconceivable that a man could be

endowed with the power to produce spermatozoä before he is born; nor could a woman produce ova before her birth; nor is it possible to endow a fertilized ovum with the power to produce a man or woman before it is formed. When Adam's spermatozoä and Eve's ova were made the men and women to be produced from them had not come into being; and it was impossible for even the Creator to endow them, at that time, with the power to produce spermatozoä and ova. Intellect, memory, will-power, force and motion were necessary to group the atoms and cells of which the bodies of these new men and women were to be composed, into the necessary chemical combinations and mechanical arrangements in order to construct their bodies. Neither the spermatozoä, the ova nor the germ-cells produced from them, had intellect, memory, will-power nor the necessary force. Therefore it was impossible for Adam's spermatozoä and Eve's ova, or germ-cell, resulting from their fusion, to produce Adam and Eve's children, automatically.

Secondly.—Neither the children of Adam and Eve nor of any other man or woman ever had the power to generate spermatozoä and ova, voluntarily. It is inconceivable that the blind unthinking genital organs of Adam's children or of any other man or woman ever produced spermatozoä and ova spontaneously and automatically. We are compelled to believe that the Creator always generates, guides and controls the forces and motions which assemble and group the atoms into the form of the spermatozoä and ova; and that he directly and

specially endows each spermatozoön and ovum with such properties and potentialities as it may possess.

Thirdly.—Life is not a property of matter. If it were, there would be no such thing as death; for matter and all its attributes and properties are eternal. The atoms, of which a man's body is composed, are as old as the earth. But during his life, they are grouped together; and this group of atoms is endowed with the properties and potentials of a living being. The human body has identically the same physical properties, whether it be living or dead. Thus, it has the same weight, length, breadth and thickness after death that it had while living, until disintegration sets in. Apparently, the living human body is similar to a piece of iron, when charged with electricity or magnetism. Neither of these adds anything to the weight of the iron; nor do they change its structure, form, size, nor its appearance. When they leave the iron it remains as it was before it was charged with them. So it is with the human body for a time after life leaves it.

Life not being a property of matter, it must be directly and specially conferred, by a supernatural creative force, upon the body in which it resides.

It is agreed by all biologists that there is no such thing as spontaneous generation of animals, nor of plants at this time. As Huxley puts it: "*Omne vivum ex vivo*," "all life comes of life." (Encyc. Brit. (9 ed.) 8, p. 746.)

Now, if there be no such thing as spontaneous generation of animals, nor of plants, why should there be spontaneous generation of life? Neither the sperm-

atozoön, nor the ovum can live alone. But when united and fused together, under proper conditions, this combination takes on the manifestations of life; and these manifestations continue until death.

Any good chemist can analyze a fertilized ovum and learn, exactly, the chemical elements of which it is composed, and the proportions in which they are combined. He could then make a new combination of carbon, hydrogen, nitrogen and oxygen in the same proportions, in which these substances were combined in the fertilized ovum; and if life were a property of that combination of atoms, this new chemical compound, ought to become a living creature. But no such thing could ever happen.

As already remarked, neither the spermatozoön nor the ovum can live alone. But when fused together, the combination becomes a living creature. The atoms in the combination are identically the same that were in the spermatozoön and ovum before the fusion occurred. Why should the combination live when the two component parts of it could not?

It is clear that no man can, voluntarily nor involuntarily endow a spermatozoön with the power to develop, alone, into a human being; for every one of them dies in a day, or within a few days, after it matures; unless it be so fortunate as to unite and fuse with an ovum. It is equally clear that no woman can endow an ovum with the power to become a human being. Every ovum soon dies, unless it unite and fuse with a spermatozoön under conditions favorable to growth. Haeckel says: "there are calculated to be 72,000 [ova] in the sex-

ually mature maiden.” (Evolution of Man, p. 347.) The number of spermatozoä, generated in the sexual organs of a man greatly exceeds the number of ova produced by a woman. It follows that countless trillions of spermatozoä and ova die daily, and disintegrate.

Now, if no man can endow a spermatozoön with the power to develop into a new human being; and if no woman can endow an ovum with power to do so; how is it possible for either parent to endow the fertilized ovum with that power, when it is no part of the body of either of them?

But the evolutionist maintains that the child has in fact, many of the qualities, characteristics and traits, both physical and mental, of its parents; that the parents transmit these qualities, characteristics and traits, to their child, by and through the spermatozoön and the ovum; that this is the only means by which the child could acquire the qualities, characteristics and traits of its parents. Hence, the evolutionist infers that heredity is based on the physical qualities and properties of the spermatozoön and ovum.

But, as I have already argued (Sec. 15) the spermatozoön and the ovum are, themselves, new, direct and special creations, and so is the embryo body. While the physical qualities and characteristics of the spermatozoön may affect the body and mind of the child, to some extent; yet the child remains a new, direct and special creation.

Neither Darwin, nor any other man, has ever shown how it is possible for the father, his body or

any part of it, to impress, modify or affect the spermatozoön, or any part of it, in such a manner as to cause the child to resemble him in any particular; nor has it been shown how it is possible for the mother, her body or any part of it, to impress, modify or affect the ovum, or any part of it, in such a manner as to cause the child to resemble her. When we consider the great number of spermatozoä and ova that are produced; their small sizes and short lives; their location in the genital organs; and the lack of intellect, memory and will-power in every organ and part of the bodies of the parents, and the fact that the "gemmules" must reach the spermatozoön and the ovum through the blood, we are compelled to believe that it is impossible for the spermatozoön and ovum to transmit, unaided and alone, any quality, characteristic or trait of a parent to the child; and we are forced to infer that the Creator, directly and specially, endows the spermatozoön and ovum with power to convey to the child such qualities, characteristics, and traits of its parents as they do, in fact, carry to it.

Assuming for argument that certain qualities, characteristics and traits of the father and mother are transmitted to the child by and through the spermatozoön and ovum; this fact does not militate against my theory of special Creation; for it seems reasonable to suppose that the spermatozoön and ovum are specially endowed by the Creator, with such powers and potentialities as they possess. Moreover, the evolutionist and materialist are in this attitude; they cannot show how it is possible for the germ-cell (com-

posed of the spermatozoön and ovum) to produce, unaided and alone, a child with the qualities, characteristics and traits of its parents; nor can they prove that the germ-cell and its daughter-cells do, in fact, automatically, produce the child without the aid of the Creator.

Assuming for argument that the spermatozoön, ovum, germ-cell and its daughter-cells appear to do automatically all the wonderful things that the evolutionist and materialist say they do, the question remains: do these senseless, unthinking atoms and cells, spontaneously and automatically build up the embryo body with all its organs and parts, or does the Creator, in fact, generate, guide and control the forces and motions, which group these cells into the embryo body? In other words: when the atoms and cells, which go to build up the embryo body, appear to act spontaneously and automatically, are they, in fact, moved, guided, controlled and grouped into the form of the embryo body by the Creator?

The facts in relation to the development and growth of the embryo are easily described and understood. But the real question is this: "What force or agency causes this development and growth?"

What force or agency causes the child to resemble its parents. Do the germ-cell and its daughter-cells spontaneously and automatically cause this resemblance; or does the Creator cause it?

Referring to the origin of life in the individual, Professor Martin says:

"At present we know nothing in physiology answering to the match which lights the furnace; those

manifestations of energy we call life are handed down from generation to generation, as sacred fire in the temple of vesta from one watcher to another. Science may at some time teach us how to bring the chemical constituents of protoplasm into that combination in which they possess the faculty of starting the oxidations under those conditions which characterize life; then we shall have learnt to strike the vital match.” (Martin, Human Body, p. 312.)

I do not believe that life is handed down from generation to generation. On the contrary the Creator strikes “the vital match” when each fertilized ovum is formed; and every such human ovum is directly and specially endowed by the Creator, with the power to develop into a man or woman.

Sec. 32. Nature has no Power to Generate a New Human Being; nor to Evolve one from the Germ-Cell

Nature is defined as: “The forces or processes of the material world conceived of as an agency intermediate between the Creator and the world, producing all organisms and preserving the regular order of things; as in the old dictum, ‘nature abhors a vacuum.’ In this sense, *nature* is often personified.” (Cent. Dic. 5, p. 3943.) It follows that “nature” is not a substantial nor a material entity or thing, like a man, a tree, or a stone; but is only a name for

certain real or imaginary "forces or processes." The word does not indicate by what agency these "forces or processes" are generated, guided nor controlled. But we use the word to indicate or describe certain phenomena, which we do not understand, in the same manner that we use the word "gravitation."

The naturalist or materialist would say that nature generates the spermatozoön and ovum; that it unites and fuses them into the germ-cell; and that it develops this cell into a man or woman. One might as well say, historically, that the spermatozoön and ovum are generated and fused; and that a man or woman is produced from it. But this statement does not explain anything. It does not tell us what force selects, assembles and groups the atoms into the spermatozoön and ovum; nor what endows it with life; nor who nor what creates its soul; nor what force or agency causes the embryo to develop and grow to manhood or womanhood.

To say that "nature" generates and evolves new men and women, is no explanation of the phenomena of reproduction. Nature has no physical body, no weight, length, breadth, nor thickness, no intellect, memory nor will-power; nor can it voluntarily generate force nor motion. It follows that "nature" cannot form the spermatozoön nor the ovum; cannot cause them to unite and fuse into a germ-cell; nor cause the necessary atoms and cells to assemble and group themselves into the chemical combinations and mechanical arrangements required to build up the embryo body, its organs and parts.

In other words, "nature" works by and through

the spermatozoön, the ovum and germ-cell or fertilized ovum. It has identically the same powers and potentialities that they have—no more nor less. It follows that nature cannot, automatically, generate nor evolve, a new man, nor a new woman.

Sec. 33. Every Human Being is a New, Direct and Special Creation by Al- mighty God; this Question to be Determined, How

To determine this question it is necessary: *first*, to ascertain what work has to be done in order to create a new human being; *secondly*, to consider whether this work can be done, spontaneously and automatically, by the germ-cell or fertilized ovum and its daughter-cells, or whether a supernatural psychic and creative force is necessary to do it.

Darwin ought to be accepted by the evolutionist and materialist as high authority on any biological question, and specially on the subject of special creation. I call him as my first witness. In his *Origin of Species*, last edition, 1872, (vol. 2, p. 298) he says:

“I believe that [all] animals are descended from at most only four or five progenitors, and plants from an equal or lesser number. Analogy would lead one step further, namely, to the belief that all animals and plants are descended from some one prototype.”

Again, on page 299, he says:

“If we admit this, we must likewise admit that all the organic beings, which have ever lived on this earth may have descended from one primordial form.”

The last ten lines in his *Origin of Species* (vol. 2, pp. 305-306) are in these words:

“Thus, from the war of nature, from famine and death, the most exalted object which we are capable of conceiving, namely, the production of the higher animals, directly follows. There is grandeur in this view of life, with its several powers having been originally breathed by the Creator into a few forms, or into one, and that whilst this planet has gone cycling on, according to the fixed law of gravity, from so simple a beginning, endless forms most beautiful and most wonderful, have been and are being evolved.”

Thus, the reader will see that Darwin, himself believed that the first one, or the first few, animals and plants were directly and specially created by Almighty God.

I base the theory that every Human being is a new, direct and special creation by Almighty God, on the following propositions:

Sec.34. Proposition 1. Animals and Plants First Appeared on the Earth at a Certain Time

There was a time when there were no animals, nor plants on our planet. Therefore, they must have appeared at a definite period.

The rocks tell us that animals and plants first appeared on the earth in the archæozoic or primordial geological age, which, according to Haeckel, began 100,300,000 years ago. (Last words on Evolution, p. 165.) He also says that "life began to exist at a definite period," "on our planet;" that "no organism can exist or discharge its functions without water. No water, no life!" and that the surface of the earth had to cool down so as to convert "the envelope of steam into water" before animals and plants could live. (Evolution of Man, p. 200.)

**Sec. 35. Proposition 2. First Animal and
Plant were Either Specially Created;
or Arose by Spontaneous Gen-
eration from Inorganic
Matter**

Mysterious and miraculous as it may seem, animals and plants have lived on the earth during this eternity of time. The earth is now covered with countless millions of them. We know that we, ourselves, are here. How did they happen to be here? How did we get here? How did life originate on the earth?

It is obvious that the first animal or plant that appeared on the earth was either directly and specially made, by a supernatural psychic and creative force,

of inorganic matter; or that it arose, by spontaneous generation, from such matter; for it must necessarily have originated in the one manner or in the other. How else could it have come into existence?

So far as I know, there are only two theories, among educated and scientific men, as to the origin of animals and plants. The one is that they were directly and specially made by the Creator; the other is that they arose by spontaneous generation, from inorganic matter. Which of these is most plausible? (Spencer, *Principles Biology*, vol. 1, pp. 415-416.)

The evolutionist and materialist maintain that the course of nature is "uniform, continuous and everlasting;" that the earth is now behaving identically, as it has been ever since it came into existence; that animals and plants are now being evolved, as in the past, while others are becoming extinct, and that every animal and plant is merely a co-ordinated term in nature's "great progression." (Huxley, *Man's Place in Nature*, p. 151.)

According to this view, if an animal or a plant was ever spontaneously generated from inorganic matter, we would naturally expect to find them arising in the same manner today, for there is no reason to suppose that the nature of the "inorganic matter," which they say produced the first animal or plant, has been exhausted; nor that it has changed; nor that the conditions have changed, nor that the forces which are supposed to have caused the spontaneous generation of the first animal and plant have ceased to exist.

Sec. 36. Proposition 3. No Spontaneous Generation of Animals; nor of Plants

Professor Huxley (1825-1905) was a scientist and philosopher of the first magnitude. He was an intimate friend to Darwin; an evolutionist and materialist of the strictest sect and fully competent to speak for these schools of philosophy. Among other works on evolution, he wrote, "Man's Place in Nature" (1863), in which he argued at great length that man is a descendant of an ape. Hence the following quotations from his works may be taken as authoritative admissions on the part of the evolutionist and materialist.

He says:

"The fact is that at the present moment there is not a shadow of trustworthy direct evidence that abiogenesis [spontaneous generation] does take place, or has taken place, within the period during which the existence of life on the globe is recorded." (Huxley, *Anat. Invert. An.*, pp. 40-41.)

Writing in the *Encyclopedia Britannica* (9 ed., vol. 8, p. 746.) he says, in substance, that the aphorism: "*omne vivum ex vivo*" ("all life comes of life") is a "well established law of the existing course of nature."

The theory of spontaneous generation assumes that certain inorganic elements, spontaneously and automatically grouped themselves together in such proportions and in such a manner, chemically and me-

chanically, as to produce one or a very few animals or plants; and that all other animals and plants have descended from this one, or these few primordial forms. No one pretends to say that there is any direct evidence that any such thing ever happened. On the contrary every fact within our knowledge tends to negative the theory of spontaneous generation. But, in order to dispense with the theory of special creation, the evolutionist and materialist invented the theory of spontaneous generation. There is not only no evidence to support the theory of spontaneous generation, but after many trials scientific men have wholly failed to produce any living substance, whatever. On this point Professor Huxley says:

“To enable us to say that we know anything about the experimental origination of organization and life, the investigator ought to be able to take inorganic matters, such as carbonic acid, ammonia, water and salines, in any sort of inorganic combination, and be able to build them up into protein matter [nitrogenous or albuminoid bodies] and that protein matter ought to begin to live in an organic form. That, nobody has done as yet; and I suspect it will be a long while before anybody does it.” (Huxley, *Origin of Species*, p. 69.) After discussing the theory of spontaneous generation at length, and describing the experiments which are supposed to have destroyed that theory, he says:

“For my part, I conceive that with the particulars of M. Pasteur’s experiments before us, we cannot fail to arrive at his conclusions; and that the doctrine

of spontaneous generation has received a final *coup de grace*" [stroke of mercy or death blow.]

After describing the experiments of a number of scientists the New International Encyclopedia, published in 1905, (vol. 1, p. 463) says:

"The result of these experiments and conclusions is that the view that spontaneous generation takes place at the present day, has been entirely discarded."

If there was ever any such thing as spontaneous generation of animals and plants, from inorganic matter, why should it not continue to happen, down to the present time?

We are therefore compelled to believe that there never was any such thing as spontaneous generation from inorganic matters; and we know that all the men of the earth, acting in concert, could not produce a single live worm!

Sec. 37. Proposition 4. Creator Could Have Made a Million Animals or Plants as Well as One

If it be admitted, as Darwin does, that the Creator made "one or a few" animals and plants, in the beginning, we may well suppose that He could have made a million, or a million of millions, as easily as one.

Sec. 38. Proposition 5. If the Creator Made the First Animal and the First Plant He Made All Others

If it be admitted that He created the first one, or the first few, animals and plants, why should we doubt that He created all of them? If He began to create them, why should He cease to do so? His works are uniform, continuous and everlasting.

But in his "Origin of Species" (vol. 2, p. 304-305) Darwin says:

"Authors of the highest eminence seem to be fully satisfied with the view that each species has been independently created. To my mind it accords better with what we know of the laws impressed on matter by the Creator, that the production and extinction of the past and present inhabitants of the world should have been due to secondary causes, like those determining the birth and death of the individual."

What are "the laws impressed on matter by the Creator," that have anything to do with the reproduction of animals and plants? What laws "impressed on matter" have any bearing on the question whether animals and plants have arisen from inorganic matter, by spontaneous generation or by special creation? Perhaps Darwin means to say that he supposes the Creator would naturally make one or a few primordial forms of animal and plant and turn them loose upon the earth to shift for themselves sub-

ject to "secondary causes," namely, the factors of evolution. But he does not profess to have any special knowledge of the Divine Mind; nor does he pretend to know more of it than any other man does.

Perhaps Lamarck (1744-1829) was the first to suggest the theory of spontaneous generation, in the sense in which these words are now used, and the evolution of species. (*Encyclopedia Britannica* 14, p. 232.) Down to his time, no one doubted the Mosaic story of the creation. Belief in the theory of special creation was well nigh universal down to the publication of Darwin's *Origin of Species*, in 1859. This belief was shared alike by both scientists and laymen. But shortly after the publication of that work, belief in the theory of organic evolution became a fad among educated people; and that belief was supposed to indicate intellectual power and independence of thought.

Sec. 39. Proposition 6. Human Body is Either Specially Created or Spontaneously Generated, Which?

According to the evolutionist and materialist, the reproduction of the human body from a fertilized ovum is, in substance and effect, the same thing as spontaneous generation of such a body from inorganic matter. The work to be done in the one case is identically the same as that to be done in the other. In fact

the spermatozoön and the ovum are made of dead matter; and if we consider the making of the spermatozoön and the ovum as the first steps in the process of reproduction as they are; and also assume that the Creator takes no part in that process, we would then have to say that the human body arises by spontaneous generation from inorganic matter; for it is undoubtedly true that the spermatozoön and ovum are made of inorganic substances, namely: carbon, hydrogen, nitrogen and oxygen. It is equally true that the fertilized ovum has no more intellect, memory nor will-power than its component atoms of carbon, hydrogen, nitrogen and oxygen had; nor has it any more power to generate, guide and control forces and motions than they had. It follows that the same psychic and creative force is necessary to produce a new human being whether it be made from a germ of inorganic matter or from a fertilized ovum; the ovum being only one remove from inorganic matter. Moreover, the entire human body is made of dead matter except the infinitesimal fertilized ovum.

There is no middle ground between special creation on the one side and spontaneous generation on the other; either the Creator generates, guides and controls the forces and motions which build up the embryo body, its organs and parts; or the atoms and cells, of which they are made, do, spontaneously and automatically, assemble and group themselves into the chemical combinations, and into the mechanical arrangements, which are necessary to make them.

The reader may argue that "nature," "heredity" or the germ-cell (fertilized ovum) does this wonder-

ful work of building up the embryo body; and, therefore, that neither the Creator nor spontaneous generation does it. But "nature" and "heredity" do all their work by and through the germ-cell; so their powers are identical with those of the germ-cell. This germ is a tiny bit of protoplasm composed of carbon, hydrogen, nitrogen and oxygen, with a possible trace of sulphur and phosphorus. It has no brain, eyes, ears, nose, touch, nor taste; no intellect, memory, nor will-power; no knowledge of anatomy, chemical elements, chemical affinity, form, size, time, nor space; nor any constructive power nor force; has no power to generate forces nor to guide and control motions.

Therefore, it is impossible for the germ-cell, or its daughter-cells, to build up, automatically, the embryo body, with all its organs and parts. It follows that this body must be directly and specially created by Almighty God.

Again, every embryo body is made of cells (organic bricks) and these are made of dead atoms. In order to construct this body it is necessary to group a certain number of these atoms into certain chemical combinations; next these combinations must be grouped into certain mechanical arrangements. Thus, the skeleton is made of bones; they are made of cells, which in turn are made of dead atoms of lime, carbon, phosphorus, etc.; these cells must be grouped into phosphate of lime, carbonate of lime, gelatin, etc. These combinations must then be grouped into the two hundred and seventy-eight bones of the embryo skeleton, giving each bone its proper form, size, structure and place in the skeleton. It is clear that neither the

father nor the mother takes any part in making these chemical combinations nor in making the mechanical arrangements. It is equally clear that they are not made by chance nor by accident; nor by the "factors" of evolution.

It follows that the atoms and cells of which the embryo body is made, do, spontaneously and automatically group themselves into the chemical combinations and mechanical arrangements, which are necessary to construct the several organs and parts of the embryo body without the aid or guidance of any extraneous psychic or creative force; or that every organ and part of the embryo body is directly and specially made by the Creator.

Sec. 40. Proposition 7. Human Skeleton is a Special Creation

Human bones are composed of ten chemical elements, namely: carbon, chlorin, hydrogen, lime, magnesium, nitrogen, oxygen, phosphorus, sodium and sulphur. As found in the bones, these elements are grouped into the five chemical combinations, following: phosphate of lime, carbonate of lime, carbonate of soda, chloride of soda, and gelatin.

There are eight bones in the cranium, fourteen in the face and six in the ears, making twenty-eight in the skull, besides the thirty-two teeth. (Encyc. Brit. (9 ed.) vol. 1, p. 822.) In the infant there are thirty-three vertebræ (joints) in the spinal column, namely:

seven cervical, in the neck; twelve dorsal, in the back; five lumbar in the small of the back; five sacral, in the sacrum; and four coccygeal, in the coccyx. But in the adult, there are only twenty-six, the five sacral joints having fused into one bone, and the four in the coccyx having fused into another; these two and the twenty-four regular vertebræ (joints) making twenty-six. (Same book, p. 820.) In the chest there are twelve pairs of ribs, the sternum or breast bone and the hyoid or tongue bone, twenty-six in all. (Same book, p. 822.) Each arm and hand, including the scapula or shoulder blade, consists of thirty-two bones, making sixty-four in the two arms and hands. In each leg and foot, including the bones of the pelvis, there are thirty-one bones, making sixty-two in the pelvis legs and feet. So that the adult human skeleton consists of two hundred and six bones, besides the thirty-two teeth. (Johnson's Universal Encyclopedia 7, p. 553.)

The same book, (p. 533) says:

"At birth their number is 278; at the age of twenty-five, 224; in advanced old age, 194. About 660 segments are needed in the formation of the 206 bones."

In another place it says:

"Thus, the thigh bone or femur represents the fusion of at least five distinct segments, the union not being fully completed until about the twentieth year." (Same book, p. 553, column 1.)

There is no bone in the fertilized ovum; therefore each skeleton and each bone is produced anew; that is, it grows anew for itself. No two bones are exactly alike. In the case of pairs similar bones are on opposite sides of the body, thus half the ribs, one arm,

hand, leg, and foot are on each side of the body. Each of the twenty-four regular joints in the spinal column is similar to every other joint except the atlas. But, beginning at the top and going downward, each joint is smaller than the one next below it.

The bones of the skeleton have pores, foraminæ (holes), cavities, processes, joints and sutures. Some of them are long, others short, broad and irregular. Each is attached to one or more other bones by a joint or a suture. Each is adjusted to, and correlated with every other, in structure, form, size and function. The bones in the infant body grow inside of it and while in the mother's womb. There is no model present by which to make it.

Who determines at what points in the embryo body these two hundred and seventy-eight bones shall be built up? Who ordains that there shall be twenty-two in the skull, thirty-three in the spinal column, etc? Who fixes the structure, form, and size of each bone? Who adjusts and correlates each bone in the skeleton to every other? Who counts them? Who guides and controls the forces and motions that build up the skeleton, in such a manner that the bones on the right side have the same structure, form and size as those on the left? How does it happen that the bones on the right side are the reverse of those on the left? How does it happen that each human skeleton is exactly like every other. Who fixes nine months as the time in which the infant skeleton shall mature sufficiently for birth?

The father contributes the spermatozoön and the mother the ovum; these two cells fuse into the

germ-cell (fertilized ovum), which is composed of carbon, hydrogen, nitrogen, and oxygen, with a possible trace of phosphorus and sulphur. Whatever qualities, characteristics, traits and potentialities pass from the parents to the child must necessarily be transmitted by and through the germ-cell (or fertilized ovum), for nothing else passes from the parents to the child. This cell is about the size of one-sixth of a common pin's head; and is barely visible to the naked eye under the most favorable conditions. It has no intellect, memory nor will-power; no knowledge of anatomy, nor of the human body.

It is immediately divided into two daughter-cells, these into four, eight, sixteen, thirty-two and so on to infinity. Thus, it appears that the infinitesimal fertilized ovum is soon disintegrated, divided into millions of pieces and distributed among the new cells which are made from the food of the mother.

It is impossible to believe that the minute fertilized ovum when divided into a million pieces, selects the atoms, generates, guides and controls the forces and motions which build up the two hundred and seventy-eight bones in the infant body. It is preposterous to suppose that the millionth part of the germ-cell can determine the point in the embryo body, in which the skull bones, the ear bones, the spinal column, the arm-buds, leg-buds, etc., shall appear. Nor can we believe that this little cell or any of its daughter-cells can spontaneously and automatically produce any of the vital phenomena, manifested by the human skeleton.

Every one knows that neither the father nor the

mother has any voluntary power, nor any control over the development and growth of the embryo.

Does the embryo develop and grow by accident or chance? Surely not; for each embryo develops and grows precisely as every other does, in every age and country, thus showing that the same ubiquitous creative force makes all of them.

“We must not assume any original creation, nor repeated creations,” says Haeckel, “to explain this, but a natural, continuous and necessary evolution.” (Evolution of Man, p. 26.) He argues that there is no personal God.

Writing in the Encyclopedia Britannica (vol. 8, p. 746, 9 ed.) Professor Huxley says:

“No exception is, at this time, known to the general law, established upon an immense multitude of direct observations, that every living thing is evolved from a particle of matter, in which no trace of the distinctive characters of the adult form of that living thing is discernible. This particle is termed a *germ*.”

* * * * *

“The definition of a germ as ‘matter potentially alive, and having, *within itself*, the tendency to assume a definite living form,’ appears to meet all the requirements of modern science * * * *

And the qualification of ‘potential’ has the advantage of reminding us that the great characteristic of the germ is not so much *what it is*, but *what it may, under suitable conditions, become*.”

* * * * *

“In all cases, the process of evolution consists in a succession of changes of the form, structure and

functions of the germ by which it passes, step by step, from an extreme simplicity, or relative homogeneity, of visible structure to a greater or less degree of complexity or heterogeneity; and the course of progressive differentiation is generally accompanied by growth, which is effected by intussusception," [interstitial deposit.]

* * * * *

"And so far from the fully developed organism's being simply the germ *p'us* the nutriment, which it has absorbed, it is probable that the adult contains neither in form, nor in substance, more than an inappreciable fraction of the constituents of the germ, and that it is almost wholly made up of assimilated and metamorphosed nutriment."

This being true, it cannot be said that the germ (fertilized ovum) ever develops into a man or woman. On the contrary it is annihilated; and its identity is wholly lost among the daughter-cells which are made of the mother's food.

Herbert Spencer invented what he calls "physiological units" or "constitutional units," and "structural proclivity." But neither he nor any other man ever saw one of these "units," they being wholly imaginary. In his *Principles of Biology* (vol. 1, p. 368) under "Genesis, heredity and variation," he says:

"So that though all parts are composed of physiological units of the same nature, yet everywhere, in virtue of local conditions and the influence of its neighbors, each unit joins in forming a particular structure appropriate to its place."

Could anything be more absurd?

For Spencer's view of "physiological units" and "structural proclivity" see *Principles of Biology* 1, pp. 226, 361, 362, 365, 368, 372, and vol. 2, pp. 612-618.

The effect of the above quotations is that the atoms and cells of which the embryo body is composed, do spontaneously and automatically assemble and group themselves into the chemical combinations and mechanical arrangements, which are necessary to build up the human body, without the aid of any extraneous psychic or creative force whatever. This is necessarily the theory of the evolutionist and materialist; for they deny that there was ever any such thing as special creation. Besides, every one knows that neither the father nor the mother has any power, nor any control over the development and growth of the embryo.

It follows that the blind, unthinking, fertilized ovum and daughter-cells arising from it, spontaneously and automatically assemble themselves together in the form of the two hundred and seventy-eight bones of the embryo skeleton; or that the Creator generates, guides, and controls the forces and motions which build up the embryo body. Which theory is most plausible?

We cannot even imagine the dead atoms of carbon, chlorine, hydrogen, lime, etc., which compose the bones, assemble and group themselves into the twenty-two bones of the skull; nor into the thirty-three joints of the spinal column; nor into the bones of the arms, hands, legs and feet with all their pores, foraminæ, cavities, processes, joints and sutures.

But the evolutionist says that "heredity" produces the embryo; and another says "nature" does

this wonderful work. I reply that whatever "heredity" and "nature" may do toward the production of the embryo must necessarily be done by and through the fertilized ovum; and I have already argued that this little atom is powerless to do any such thing. See index, *infra*, "Heredity."

Each bone in the skeleton, and all of them as a whole, testify that they were designed and made by the Creator!

Sec. 41. Proposition 8. Each Human Eye is a New, Direct and Special Creation

Two new eyes must be made, out and out, for each embryo.

The eye is formed before birth. This fact makes it clear that the alleged factors of evolution have nothing to do with its production.

It is obvious that the father takes no part in the construction of the child's eyes; for he contributes the spermatozoön, only; and the formation of the eye begins a considerable time after the spermatozoön fuses with the ovum. It is equally clear that the mother has no voluntary agency in the production of the child's eyes. In brief, the child develops and grows in the mother's womb, as a parasite, she being merely its host. Moreover, the reader will readily admit that all the scientists on the earth, acting in concert, could not make a living eye for a toad.

Each human eye has the same parts, the same

construction, form, and substantially the same size that every other such eye has; and performs the same functions. So all human eyes occupy the same relative position in the face. We are, therefore, compelled to believe that human eyes are not produced by accident nor by chance; but they develop and grow by force of a universal law; or that they are made by the Creator.

But the almost universal belief is that "heredity" or "nature" causes the child's eyes to grow, as those of the parents grew.

A cause is described as: "An antecedent, upon which an effect follows according to the law of nature." (Cent. Dic. 1, p. 868.)

Ordinarily, the word "cause" is understood to mean a force or agency which produces a given effect or result, which could not happen without that force or agency. Such a force or agency is termed an efficient cause. (Cent. Dic. 3, p. 1849.)

It would be absurd to suppose that the eyes of the father and mother cause or produce the eyes of the child. It follows that there is no causative relation between the eyes of the parents and those of the child. The most that could be said in this direction is that the same force or agency which produced the eyes of the parents, namely: the Creator, also caused and produced those of the child.

The fact that the father and mother have eyes is no reason why the child should have them; for the forces and motions which made the eyes of the parents ceased to exist long before the formation of the germ-cell from which the child is produced.

Each human eye is a new combination of the atoms and cells of which it is composed. No atom, in it, was ever a part of an eye of either parent. The atoms and cells, of which it is made, are grouped into new chemical combinations; and these are mechanically arranged in such a manner as to construct the human eye for the first and last time. The forces and motions, which build up each eye are peculiar to it. The work done in making the eyes of the parents, has nothing to do with the making of the eyes of the child; for the atoms and cells which are employed in constructing the child's eyes must be assembled and grouped into the necessary chemical combinations and mechanical arrangements as if the father and mother had no eyes. In other words, each eye must be made anew, without regard to the eyes of the father and mother or any other person. If a man make a million bricks, it requires the same work to make the last one that it did to make the first one; so if a hundred million silver dollars are coined at a mint it requires, identically, the same work to coin each of them that it did to make every other; and so of the eyes.

While discussing "organs of extreme perfection," and referring to the imaginary evolution of the human eye, in his *Origin of Species* (vol. 1, p. 228), Darwin says:

"Let this process go on for millions of years, and during each year on millions of individuals of many kinds, and may we not believe that a living optical instrument might be thus formed, as superior to one of glass as the works of the Creator are to those of man?"

In brief, Darwin's theory is that the eyes of each

individual are better than those of his parents; and that he transmits to his child all the improvements made on his eyes during his life and so on to the latest generation. In other words, according to Darwin, the eyes of today are the "accumulated improvements" of millions of years.

Apparently Darwin thinks that each individual gets the benefit of all improvements made in the eyes of every other individual of all other species without regard to genetic relations, for he says, "on millions of individuals of many kinds," etc. According to this view, a man would avail himself of any improvement that might be made in the eye of a fly, which is preposterous.

There would be some force in Darwin's argument if it were possible to transfer the father's or the mother's eyes, bodily, to the child. But such a thing is too absurd to be dreamed of.

Every one knows that each eye, and every part of it, grows anew, as if the parents of the embryo had no eyes. Neither Darwin, nor any other man has ever shown how it is possible for the eyes of the father or mother to modify or affect the development, growth, form, size, color, qualities or characteristics of the child's eyes. According to Darwin's theory of "gemmules" the eyes of the father and mother give off gemmules which get into his or her blood and thence into the spermatozoön and the ovum and thence into the fertilized ovum and these produce eyes, in the child, like those of its parents. But everybody saw that these "gemmules" would have great difficulty in finding the spermatozoön and ovum, and in getting into

them when found; and that after they reached the fertilized ovum, which divides into two, four, eight, sixteen or a million daughter-cells, these gemmules would have great difficulty in finding the orbit where the new eye is to grow; and that they were as apt to land in the back, heel or toe of the embryo as in the orbit.

Besides, if there were any such thing as Darwin's gemmules there would have to be at least one for each coat, muscle, artery, vein, nerve and part of the eye; and it would be impossible for them to arrange themselves in the proper order in the embryo eye. Moreover, there might be too many or too few gemmules; some of them might get lost and leave the embryo eye without one or more of its coats or parts; then the gemmules from the father's eyes might clash with those from the mother's.

No other man has ever suggested any more plausible theory, than Darwin's "gemmules," of the manner in which the organs and parts of the parents' bodies may be supposed to modify and affect those of the child. But this theory was rejected by every one, but Darwin, as absurd and impossible.

Every human being begins life as fertilized ovum, in which there is no eye. No part of the eyes of the father is transferred, bodily, to those of the child; nor is any part of the eyes of the mother. Every part of each eye must be made anew; each part must have the proper structure, form, and size; must be adjusted to and correlated with every other; finally, the several parts must be arranged in the proper order

in the eye. In other words, two entirely new eyes must be made for each child.

Either the blind unthinking atoms and cells, of which the several parts of the eye, namely: the several coats, the aqueous humor, the lens, the vitreous body, the optic nerve, the muscles, arteries, veins, nerves, etc., are built up, do, spontaneously and automatically, and without the aid of any extraneous, supernatural, psychic and creative force, assemble and group themselves into the chemical combinations and mechanical arrangements necessary to construct the embryo eye; or the Creator, directly and specially, makes it. Which hypothesis is most plausible?

Sec. 42. Proposition 9. Each Human Ear is a New, Direct and Special Creation

Two new ears must be made, out and out, for each embryo.

The ear is a complex acoustic apparatus; is more complex, and has more parts, than the eye; and every part of it is well fitted to perform the function assigned to it. What was said in the two preceding sections, of skeleton and eye, as tending to establish the theory of special creation, applies equally to the construction of the ear.

Intellect, memory, will-power, force and motion are required to form the chemical combinations and make the mechanical arrangements necessary to construct the ear; and every part of it testifies that it was contrived and made by the Creator!

Sec. 43. Proposition 10. Each Human Brain is a New, Direct and Special Creation

An entirely new brain must be made for each embryo. What has been said of the several parts of the skeleton and of the eye, (section 40 and 41, supra), applies equally to the size, form, structure, position and number of the several parts of the brain.

Sec. 44. Proposition 11. The Sexual Organs of Each Individual are New, Direct and Special Creations

Every human being begins life as a fertilized ovum, in which there are no sexual organs whatever. It follows that a new set of such organs must be made, out and out, for each individual embryo.

Who or what determines whether the child shall be a male or female? For several weeks after the formation of the fertilized ovum there is nothing to indicate whether the child is to be a boy or girl. If it is finally decided that it shall be a male, a full set of male sexual organs is made for him. On the other hand, if it is to be a female, a set of female organs is made for her. But the production of male organs for the one, or female organs for the other is not the

only thing to be done; for every organ and part of the body is modified, adjusted to and correlated with, the sexual characters whether male or female. The reader will readily recall all the distinctive differences between a man and woman, including the secondary sexual characters. In other words, if it is determined that the child shall be a male, every non-sexual organ and part of his body must be so differentiated and modified as to make a man of him, in both mind and body. On the other hand, if the child is to be a female, all of her non-sexual organs and parts must be so differentiated and modified as to make a woman of her, with all of the qualities, characteristics and traits that belong to woman.

Intellect, memory, will-power, force and motion—creative force—are necessary to convert a sexless embryo body into a male or female child. This cannot be done by accident nor by blind chance; nor by the alleged “factors” of evolution; for this work is done before the birth of the child and before the “factors” have had an opportunity to do their “work;” besides, we cannot believe that the blind “factors” can metamorphose a sexless embryo into a male or female child.

Neither the father nor the mother has any power to determine the sex of their child; nor has the fertilized ovum any such power; for it has no intellect, memory nor will-power, nor any knowledge of sexual organs nor of anything else. Moreover, before the sex of the child has been determined this ovum has been annihilated by division among a million of daughter-cells, which are made of animal and vegetable food

eaten by the mother, which was never a part of any other human body.

Can we believe that the blind, unthinking atoms and cells of which the embryo body is built up, do, spontaneously, automatically and without the aid of any extraneous psychic force, group themselves into the chemical combinations and mechanical arrangements, necessary to construct the sexual organs of a male or female child? How can these atoms and cells elect whether it shall be a boy or a girl? If they do so elect, how can they differentiate and modify all the non-sexual organs and parts of the body so as to correlate them with the sexual organs?

The evolutionist and materialist will say that "heredity" or "nature" determines the sex of the embryo. I reply that the force and power of "heredity" and of "nature" are identical with those the fertilized ovum because they can act, only, by and through it; and it has no intellect, memory nor will-power to determine the sex of the child; nor to construct the male nor the female sexual organs after electing between them, even if such a thing were possible; nor any power to correlate the non-sexual organs and parts, with the male or female sexual organs so as to produce a man or a woman. In fact the germ-cell has no knowledge of sexual organs, nor of their form, size, structure nor functions. It follows that neither "heredity," nor "nature" has any power to determine the sex of the child, nor to correlate its non-sexual organs with its sexual ones.

We are, therefore, compelled to believe that the sex of every human being is determined by the Cre-

ator; and that all sexual organs are directly and specially made by Him.

For like reasons, we are compelled to believe that the heart, lungs, stomach, liver, kidneys, muscles, arteries, veins, nerves, and other organs and parts of the body are directly and specially made by the Creator.

Sec. 45. Proposition 12. Form, Size, Structure and Position of the Several Organs and Parts of the Body and Their Number are Conclusive Evidence that Each Human Body is a New, Direct and Special Creation

For example, the form, size, structure and position of the several bones in each skeleton, and the number of them, are proof that they are all made by the Creator.

So, the form, size, structure, and position of the several parts of the brain, eye, ear, heart, lungs, liver, kidneys, etc.; and their number cannot be explained on any hypothesis, other than that of special creation. The same is true of the muscles, arteries, veins, etc.

Sec. 46. Proposition 13. Universal Sameness of all Human Bodies, is Conclusive Evidence that Each of Them was Directly and Specially Made by the Creator

Every human body that ever lived in any age or country was composed of identically the same chemical elements that were or are found in every other such body, in whatever age or country such other body may have lived. So, each normal body, in whatever age or country it may have lived, had the same chemical combinations; the same mechanical arrangements; the same structure, the same organs and parts, and substantially the same form and size, that every other such body, of the same sex, had, whenever, and wherever such other body may have lived.

How could this universal sameness of chemical elements, chemical combinations, mechanical arrangements, etc., in all human bodies have happened? Could it have happened by accident or chance; or by force of the blind factors of evolution; or did the blind, unthinking atoms and cells, of which each human body was built up, spontaneously, and automatically, group themselves into identically the same chemical combinations, and mechanical arrangements that the atoms and cells in every other human body had grouped themselves; thus making chemical elements, chemical combinations, the mechanical arrangements, the organs and parts in each human body, identically the same as those in every other such body, whenever

and wherever it may have lived? Such a thing is impossible; specially when we consider that each body grew anew, for itself.

But the evolutionist may say that this universal sameness in all human bodies is caused by "heredity."

I reply that each human body begins life as a fertilized ovum; that it develops and grows anew for itself, independently of the development and growth of any other body; it is a new combination of the atoms and cells—"organic bricks"—of which it is composed; it was made by new forces and motions of new materials, peculiar to itself. In order to build each body the atoms and cells, of which it was composed, must have been selected, assembled at the building site and there grouped into the necessary chemical combinations and mechanical arrangement. Intellect, memory, will-power, force and motion were necessary to do this work, in each instance.

Heredity is only a name for certain vital phenomena. It is not a material entity; it has no weight, length, breadth nor thickness; no constructive force; no intellect, memory nor will-power; nor any power to generate force nor motion. Nor has it any power to assemble the atoms and cells; nor to group and arrange them in such a manner as to form the body, its organs and parts. Nor can "heredity" "breathe the breath of life" into the fertilized ovum nor create a soul for the embryo body.

"Heredity" does all its work by and through the fertilized ovum. It has identically the same properties and potentialities that this ovum has, no more nor less. Surely this ovum has no knowledge of the

bodies of its parents, nor of their organs and parts; nor can it have any memory of a thing that it never knew; nor has it any inherent power to reproduce the bodies of its parents or either of them.

It is impossible to explain and account for this universal sameness of all human bodies without assuming that each of them was made by one and the same hand, namely: Almighty God. We cannot doubt that He directly and specially created every human being that ever lived on our planet.

Sec. 47. Proposition 14. Creator's Supervision of the Development and Growth of the Em- bryo is Necessary to Produce the Human Body

The watchmaker makes one piece of a watch at a time; but every organ and part of the embryo body grows all the time. Thus the body and all its internal organs and parts; and both arms, hands, legs and feet are growing continuously until it is grown. If the growth of each organ and part of the body were not so regulated as to keep pace with every other organ and part, there would be no proper proportion among them. One arm and hand would be larger and longer than the other; one leg larger and longer than the other; the five segments in the femur would not meet and unite to form the complete bone. (Johnson's Cyclopedia 7, p. 553.)

If there were no extraneous supervising architect to adjust and correlate each organ and part to every

other, there would be no harmony of form, size, nor structure in the edifice. Surely, the atoms and cells in the right leg would have no knowledge of the form, size, nor structure of the left; and no organ, nor any part of the body, would have any power to adjust itself, automatically, to any other.

Sec. 48. Proposition 15. Each Human Body is Specially Endowed with Life

Neither the spermatozoön nor the ovum is a living creature, for neither of them has the power to take and assimilate food; nor to develop and grow, alone. But when they unite and fuse, this combination begins to live, it absorbs and assimilates food or nourishment, develops, divides and produces an infinite number of daughter-cells. The atoms in the fertilized ovum are identically the same that were in the spermatozoön and ovum before the fusion occurred. Perhaps these atoms form new chemical combinations. But we cannot believe that any possible combination of atoms could automatically take on the energies and phenomena of life. Any good chemist can make the same combination of atoms that is found in the fertilized ovum; but his combination would not absorb and assimilate food, it would not live, develop nor grow.

Life is not a property of matter but something wholly different from it. Matter may exist without life; but apparently, life cannot exist without matter. It is evident that the atoms of which the human body

is composed did not manifest the phenomena nor the energies of life until they were grouped into that body; on the other hand the body does not manifest vital energies after its death. Life begins at a particular moment and ceases at another specific instant.

If a piece of iron be charged with electricity, it will manifest electrical energy so long as it remains charged. But when the electricity passes from it, the iron ceases to exhibit such phenomena. So, when the human body is charged or endowed with life, it continues to manifest vital phenomena until life passes out of it.

Life is bestowed on the several species of animal under divers conditions. Thus, it is bestowed on the fertilized human ovum in the genital organs of the mother, for the reason that this is the best, if not the only, place for it to develop and grow. It is bestowed on the eggs of fishes in the water; and upon the eggs of birds, after they have passed out of the bodies of the mother bird. Let us consider the hen's egg for a moment. When laid it contains a fertilized ovum and "the white and the yellow" of the egg. It is a complete and finished egg. But it has no life. Unless it be placed under a sitting hen or in an incubator, it will decay and disintegrate.

The hen or incubator merely keeps it warm during the period of incubation. By the end of the twenty-first day, the contents of the egg-shell have been converted into a live bird, with a skeleton, muscles, arteries, veins, nerves, brain, eyes, ears, heart, lungs, liver, wings, legs, feet, etc. There is no skeleton, model, nor any other performed outline of the coming chick,

in the egg; for the contents of the egg-shell are a homogeneous mass of protoplasm. There is no reason to suppose that the warmth of the hen's body, nor that the heat of the incubator, is, alone, adequate to impart life to the egg. Each part of the egg is necessarily kept at the same temperature as that of every other part. For this reason we cannot believe that mere heat differentiates one part of the white and yellow into bones, another part into muscles, arteries, veins, nerves, etc.

In his *Principles of Biology*, (vol. 1, p. 116), Spencer says:

“There is experimental proof that seeds may, under conditions unfavorable to germination, retain for ten, twenty, and some even thirty years, the power to germinate when due moisture and warmth are supplied.”

Now if these seeds are alive, what becomes of the life in them during these long periods of quiescence? There are untold millions of grains of wheat and of corn. None of these grains will germinate until they are supplied with “moisture and warmth.” Can we believe that heat and moisture alone have any creative forces? If so, all the sands of the sea shore ought to be living creatures.

Let us consider the acorn. When mature, it falls to the ground. If it be supplied with a proper degree of heat and moisture, it will germinate in a short time. But it will never germinate, so long as it is kept in a cool, dry place. Suppose an acorn is deprived of heat and moisture for five years; that it is then supplied with them and immediately germ-

inates. When did the life of the acorn begin? Did it begin when the acorn ripened and dropped to the ground or when it germinated? If it was alive when it first matured, and germinated five years afterward, what became of its life between its maturity and its germination? Is it not reasonable to suppose that the Creator endowed it with life when it germinated?

Can we believe that the heat of the mother's body is, alone, adequate to generate life in the fertilized ovum? Can we believe that the heat of the sun and the moisture of the earth are, of themselves, sufficient to generate life in a grain of wheat, a grain of corn or an acorn?

It follows that the fertilized human ovum must be directly and specially endowed by the Creator with the power to absorb and assimilate food, to develop, grow and live! The Creator in every instance strikes the vital match!

Sec. 49. Proposition 16. Every Human Soul is a New, Direct and Special Creation

The soul is defined as: "A substantial entity, believed to be that, in each person, which lives, feels, thinks and wills." (Cent. Dic. 7, p. 5781.)

I hope, and believe that every human being has an immortal soul; and if this be true it must be his or her own, for we cannot imagine that the same soul

ever occupied more than one body ; unless we believe in the transmigration, metempsychosis or reincarnation of souls ; and this belief is too absurd for serious consideration. The child does not take his father's soul nor his mother's, nor is there any reason to suppose that either parent transmits to the child, any part of his or her soul ; nor that either of them transmits any germ of a new soul for it. No man can even imagine a division of himself—his ego or self—into two or more parts. It follows that each human body has its own soul ; which is separate from and independent of every other soul.

We cannot believe that the spermatozoön nor the ovum has any soul prior to their fusion into the fertilized ovum. We are therefore compelled to infer that the soul comes into existence at the moment this fusion occurs, or shortly afterward. We cannot even imagine that the soul is created by the father, nor by the mother, nor by the body in which it resides ; nor by accident nor chance.

It follows that a new soul must be directly and specially created for each embryo body, if it ever gets one.

It may be that life is an attribute or property of the soul. If this be true, the creation of the soul would include the creation of life.

If one believes that he has a soul, separate and apart from his body, as most of us do, he is compelled to assume, that it was directly and specially created by Almighty God.

If we believe that the soul is a special creation, we

may well assume that the body is also a special creation.

Sec. 50. Objection to this Theory of Special Creation

I admit that there are serious objections to my theory of special creation. But like objections may be brought against any other theory. For example, many serious objections have been brought against Darwin's theory of organic evolution. Yet a majority of all the scientists believe it is true.

In his "Man's Place in Nature" (p. 149), Huxley says:

"Our acceptance of the Darwinian hypothesis must be provisional so long as one link in the chain of evidence is wanting; and so long as all animals and plants certainly produced by selective breeding from a common stock are fertile, and their progeny are fertile with one another, that link will be wanting."

This link is still missing and probably will be forever.

Although there are serious objections to my theory, yet there is none so serious as there are to the alternative theory that dead atoms and blind, unthinking cells do spontaneously and automatically group themselves into the chemical combinations and mechanical arrangements, which are necessary to produce the human body; and that this body becomes, spontaneously and automatically, a live human being with intellect, memory and will.

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